

CH-53 MAINTENANCE TRAINING



LESSON GUIDE NUMBER: MOS 6113/6173 A.1 (A thru H)

Safety Precautions and Procedures

CH-53 MAINTENANCE TRAINING

LESSON GUIDE NUMBER: MOS 6113/6173 A.1 (A thru H)

YR/MO/DAY

NAME / RANK

[illegible]

- A. LECTURE NUMBER:** MOS 6113/6173 A.01 (A thru H)
- B. TIME:** 1 HOUR
- C. DATE PREPARED:** JANUARY 2002
- D. DATE REVIEWED:** Refer to review sheet
- E. TITLE:** Safety Precautions and Procedures
- F. OBJECTIVE:** student will be able to demonstrate/apply knowledge of the operation, care, and maintenance requirements of applicable work center safety precautions and procedures.
- G. INSTRUCTIONAL AIDS:**
- H. REFERENCES:**
1. OPNAVINST 4790.2_
 2. Marine Corps BST Book
 3. Local Command Procedures
 4. OSHA 29 CFR 1910
 5. A1 H53XX-GAI-000
 6. A1 H53XX-NFM-000
 7. NA 01-1A-509
 8. NA 01-1A-17
- I. PRESENTATION:** This period of instruction will inform student about the operation, care, and maintenance requirements of applicable work center safety precautions and procedures.

NOTE: Stress all WARNINGS, CAUTIONS, and NOTES throughout Presentation.

1. Discuss operation, care, and maintenance of the first aid procedures. REF: Marine Corps BST Book
2. Discuss operation, care, and maintenance of the use of solvents/paints/stripers/sealants. REF: OSHA 29 CFR 1910 and Local Command Procedures.
3. Discuss operation, care, and maintenance of the hazardous materials. REF: OPNAVINST 4790.2_, OSHA 29 CFR 1910, Local Command Procedures

4. Discuss operation, care, and maintenance of the safety procedures near electricity. REF: OSHA 29 CFR 1910, Local Command Procedures
5. Discuss operation, care, and maintenance of the composite material safety. REF: OSHA 29 CFR 1910
6. Discuss operation, care, and maintenance of the Safety Boots. REF: OSHA 29 CFR 1910, Local Command Procedures
7. Discuss operation, care, and maintenance of the protective clothing. REF: OSHA 29 CFR 1910, Local Command Procedures
8. Discuss operation, care, and maintenance of the proper eye protection. REF: OSHA 29 CFR 1910, Local Command Procedures
9. Discuss operation, care, and maintenance of the proper hearing protection. REF: OSHA 29 CFR 1910, Local Command Procedures
10. Discuss operation, care, and maintenance of the safety markings. REF: OSHA 29 CFR 1910, Local Command Procedures
11. Discuss operation, care, and maintenance of the safety procedures on/around turning aircraft. REF: A1 H53XX-GAI-000, Local Command Procedures
12. Discuss operation, care, and maintenance of the APP pre-flight/start procedures. REF: A1 H53XX-GAI-000
13. Discuss operation, care, and maintenance of the safety procedures on/near helicopter with use of Hydraulic power. REF: A1 H53XX-GAI-000, Local Command Procedures
14. Discuss operation, care, and maintenance of the safety procedures on/near helicopter with ordnance. REF: A1 H53XX-GAI-000, Local Command Procedures
15. Discuss operation, care, and maintenance of the safety procedures when jacking helicopter or while on jacks. REF: A1 H53XX-GAI-000, Local Command Procedures
16. Discuss operation, care, and maintenance of the safety procedures when washing helicopter. REF: A1 H53XX-GAI-000, Local Command Procedures, NA 01-1A-509
17. Discuss operation, care, and maintenance of the safety procedures near support equipment operations. REF: A1 H53XX-GAI-000, Local Command Procedures
18. Discuss operation, care, and maintenance of the types of fire extinguishers. REF: A1 H53XX-GAI-000
19. Discuss operation, care, and maintenance of the emergency egress procedures. REF: A1 H53XX-GAI-000
20. Discuss operation, care, and maintenance of the proper extinguishing for composite fire. REF: A1 H53XX-GAI-000
21. Discuss operation, care, and maintenance of the proper extinguishing for brake fire. REF: A1 H53XX-GAI-000

22. Discuss operation, care, and maintenance of the proper extinguishing for engine fire. REF: A1 H53XX-GAI-000
23. Discuss operation, care, and maintenance of the procedures when aircraft has loss of brakes. REF: A1 H53XX-NFM-000
24. Discuss operation, care, and maintenance of the procedures for rotor brake fire. REF: A1 H53XX-GAI-000
25. Discuss operation, care, and maintenance of the emergency hand signals. REF: A1 H53XX-GAI-000
26. Discuss operation, care, and maintenance of the hydraulic contamination. REF: NA 01-1A-17, Local Command Procedures, OPNAVINST 4790.2_
27. Discuss operation, care, and maintenance of the EMI/ESD. REF: REF: Local Command Procedures, OPNAVINST 4790.2_
28. Discuss operation, care, and maintenance of the emergency reclamation. REF: Local Command Procedures, OPNAVINST 4790.2_
29. Discuss operation, care, and maintenance of the wheels up landing procedures. REF: Local Command Procedures, OPNAVINST 4790.2_
30. Discuss operation, care, and maintenance of the tire and wheel safety procedures. REF: Local Command Procedures, OPNAVINST 4790.2_

J. SUMMARY: During this period of instruction we covered the operation, care, and maintenance requirements of applicable work center safety precautions and procedures.

K. QUESTION AND ANSWER PERIOD:

CH-53 MAINTENANCE TRAINING



LESSON GUIDE NUMBER: MOS 6113/6173 A.2 (A thru N)

**Helicopter Publications,
Diagrams, Sketches and Drawings**

CH-53 MAINTENANCE TRAINING

LESSON GUIDE NUMBER: MOS 6113/6173 A.2 (A thru N)

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DATE REVIEWED	_____	REVIEWED BY	_____
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- A. LECTURE NUMBER:** MOS 6113/6173 A.2 (A thru N)
- B. TIME:** 1 HOUR
- C. DATE PREPARED:** January 2002
- D. DATE REVIEWED:** Refer to review sheet
- E. TITLE:** Helicopter Publications, Diagrams, Sketches and Drawings
- F: OBJECTIVE:** Student will be able to demonstrate/apply knowledge of the operation, care, and maintenance requirements of applicable work center Helicopter Publications, Diagrams, Sketches and Drawings.
- G: INSTRUCTIONAL AIDS:**
- H: REFERENCES:**
1. OPNAVINST 4790.2_
 2. Local Command Procedures
 3. OSHA 29 CFR 1910
 4. A1 H53XX-GAI-000
 5. A1 H53XX-NFM-000
 6. A1 H53XX-POM-100
 7. A1 H53XX-TTM-100/110/120/200
 8. A1 H53XX-140-000/150-000/220-000/260-000/460-000
 9. A1 H53XX-140-400/150-400/220-400/260-400/460-400
 10. A1 H53XX-IPB-450
 11. A1 H53XX-GSE-000/400
 12. A1 H53XX-MRC-100, 200, 300, 400
 13. NA 01-230-HMA-6-1/2/3/4
 14. NA 01-230HM-8
 15. NA 01-1A-509
 16. NA 01-1A-17
 17. NA 17-125
 18. NA 15-01-500
 19. NA 01-230HMA-1
 20. NA A1-NAOSH-SAF-00/P-5100
- I: PRESENTATION:** This period of instruction will inform student about the operation, care, and maintenance requirements of applicable work center Helicopter Publications, Diagrams, Sketches and Drawings.

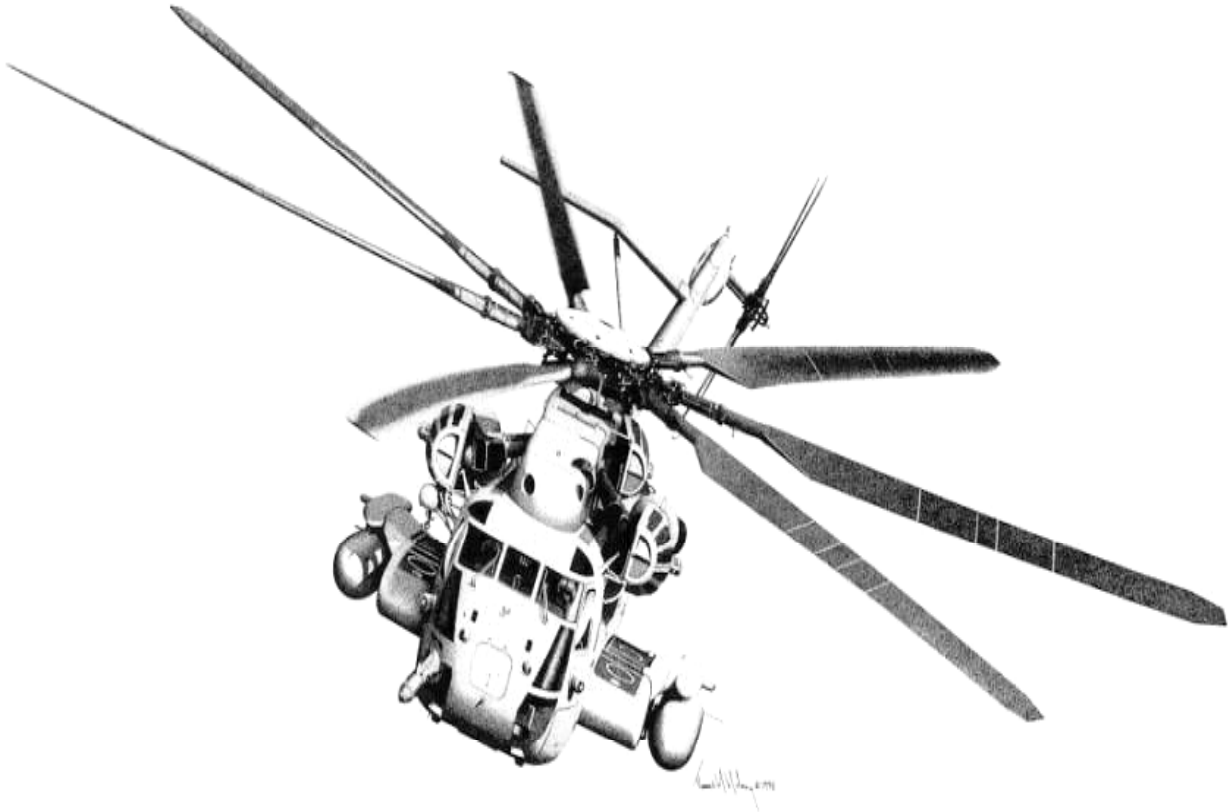
NOTE: Stress all WARNINGS, CAUTIONS, and NOTES throughout Presentation.

1. Discuss operation, care, and maintenance of the Naval Aviation Maintenance Program (NAMP). REF: OPNAVINST 4790.2_
2. Discuss operation, care, and maintenance of the Principles of operation manual. REF: A1 H53XX-POM-100
3. Discuss operation, care, and maintenance of the Testing and troubleshooting manual. REF: A1 H53XX-TTM-100, A1-H53XX-TTM-200, A1 H53XX-TTM-110, A1 H53XX-TTM-120
4. Discuss operation, care, and maintenance of the Maintenance Procedures manuals. REF: A1 H53XX-140-000, A1 H53XX-150-000, A1 H53XX-220-000, A1 H53XX-260-000, A1 H53XX-460-000, A1 H53XX-GAI-000, A1 H53XX-GSE-000
5. Discuss operation, care, and maintenance of the Illustrated Parts Breakdown manual (IPB'S) (53E Only). REF: A1 H53XX-140-400, A1 H53XX-150-400, A1 H53XX-220-400, A1 H53XX-260-400, A1 H53XX-460-400, A1 H53XX-GSE-400, A1 H53XX-IPB-450
6. Discuss operation, care, and maintenance of the Maintenance Requirement Cards (MRC's). REF: A1 H53XX-MRC-100/200/300/400, NA 01-230-HMA-6-1/2/3/4
7. Discuss operation, care, and maintenance of the Work Unit Code Manual. REF: NA 01-230HM-8
8. Discuss operation, care, and maintenance of the Aviation Hydraulics Manual. REF: NA 01-1A-17
9. Discuss operation, care, and maintenance of the Aircraft cleaning & Corrosion Control Manual. REF: NA 01-1A-509
10. Discuss operation, care, and maintenance of the Preservation of Naval Aircraft. REF: NA 15-01-500
11. Discuss operation, care, and maintenance of the safety Manual. REF: OSHA 29 CFR 1910
12. Discuss operation, care, and maintenance of the Safety Requirements for Naval Aviation Shore Activities. REF: NA A1-NAOSH-SAF-00/P-5100

J. SUMMARY: During this period of instruction we covered the operation, care, and maintenance requirements of applicable work center Helicopter Publications, Diagrams, Sketches and Drawings.

K. QUESTION AND ANSWER PERIOD:

CH-53 MAINTENANCE TRAINING



LESSON GUIDE NUMBER: MOS 6113/6173 A.3 (A thru H)

Precision Measuring Equipment

CH-53 MAINTENANCE TRAINING

LESSON GUIDE NUMBER: MOS 6113/6173 A.3 (A thru H)

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- A. LECTURE NUMBER:** MOS 6113/6173 A.3 (A thru H)
- B. TIME:** 1 HOUR
- C. DATE PREPARED:** January 2002
- D. DATE REVIEWED:** Refer to review sheet
- E. TITLE:** Precision Measuring Equipment
- F. OBJECTIVE:** Student will be able to demonstrate/apply knowledge of the operation, care, and maintenance requirements of applicable work center Precision Measuring Equipment.
- G. INSTRUCTIONAL AIDS:**
- H. REFERENCES:**

1. Operators Manual

- I. PRESENTATION:** This period of instruction will inform student about the operation, care, and maintenance requirements of applicable work center Precision Measuring Equipment.

NOTE: Stress all WARNINGS, CAUTIONS, and NOTES throughout Presentation.

1. Discuss operation, care, and maintenance of the Dial Indicator. REF: Operators Manual
2. Discuss operation, care, and maintenance of the feeler Gauges. Operators Manual
3. Discuss operation, care, and maintenance of Fish Scale. REF: Operators Manual
4. Discuss operation, care, and maintenance of the Prop protractor. REF: Operators Manual
5. Discuss operation, care, and maintenance of the Depth Finder. REF: Operators Manual
6. Discuss operation, care, and maintenance of the Torque wrenches. REF: Operators Manual
7. Discuss operation, care, and maintenance of the VATS. REF: Operators Manual
8. Discuss operation, care, and maintenance of the Cable Tensiometer. REF: Operators Manual

J. SUMMARY: During this period of instruction we covered the operation, care, and maintenance requirements of applicable work center Precision Measuring Equipment.

K. QUESTION AND ANSWER PERIOD:

CH-53 MAINTENANCE TRAINING



LESSON GUIDE NUMBER: MOS 6113/6173 A.4 (A thru E)

Types and Designations of Fuel, Lubricants and Fluids in Helicopter Servicing

CH-53 MAINTENANCE TRAINING

LESSON GUIDE NUMBER: MOS 6113/6173 A.4 (A thru E)

[illegible]

- A. LECTURE NUMBER:** MOS 6113/6173 A.4 (A thru E)
- B. TIME:** 1 HOUR
- C. DATE PREPARED:** January 2002
- D. DATE REVIEWED:** Refer to review sheet
- E. TITLE:** Types and Designations of Fuel, Lubricants and Fluids in Helicopter Servicing
- F. OBJECTIVE:** Student will be able to demonstrate/apply knowledge of the operation, care, and maintenance requirements of applicable work center Types and Designations of Fuel, Lubricants and Fluids in Helicopter Servicing.
- G. INSTRUCTIONAL AIDS:**
- H. REFERENCES:**

1. A1-H53XX-GAI-000

- I. PRESENTATION:** This period of instruction will inform student about the operation, care, and maintenance requirements of applicable work center Types and Designations of Fuel, Lubricants and Fluids in Helicopter Servicing.

NOTE: Stress all WARNINGS, CAUTIONS, and NOTES throughout Presentation.

1. Discuss operation, care, and maintenance of the JP-5/F-44 fuel. REF: A1-H53XX-GAI-000
2. Discuss operation, care, and maintenance of the JP-4/f-40 fuel. A1-H53XX-GAI-000
3. Discuss operation, care, and maintenance of MIL-L-23699 oil. REF: A1-H53XX-GAI-000
4. Discuss operation, care, and maintenance of the MIL-L-21260 oil. REF: A1-H53XX-GAI-000
5. Discuss operation, care, and maintenance of the MIL-H-83282 Hydraulic fluid. REF: A1-H53XX-GAI-000
6. Discuss operation, care, and maintenance of the MIL-L-85734 oil. REF: A1-H53XX-GAI-000

J. SUMMARY: During this period of instruction we covered the operation, care, and maintenance requirements of applicable work center Types and Designations of Fuel, Lubricants and Fluids in Helicopter Servicing.

K. QUESTION AND ANSWER PERIOD:

CH-53 MAINTENANCE TRAINING



LESSON GUIDE NUMBER: MOS 6113/6173 A.5 (A thru C-2)

Aircraft Servicing

CH-53 MAINTENANCE TRAINING

LESSON GUIDE NUMBER: MOS 6113/6173 A.5 (A thru C-2)

YR/MO/DAY

NAME / RANK

[illegible]

- A. LECTURE NUMBER:** MOS 6113/6173 A.5 (A thru C-2)
- B. TIME:** 1 HOUR
- C. DATE PREPARED:** JANUARY 2002
- D. DATE REVIEWED:** Refer to review sheet
- E. TITLE:** Aircraft servicing
- F. OBJECTIVE:** student will be able to demonstrate/apply knowledge of the operation, care, and maintenance requirements of applicable work center Aircraft servicing.
- G. INSTRUCTIONAL AIDS:**
- H. REFERENCES:**
1. A1 H53XX-GAI-000
- I. PRESENTATION:** This period of instruction will inform student about the operation, care, and maintenance requirements of applicable work center Aircraft servicing.
- NOTE: Stress all WARNINGS, CAUTIONS, and NOTES throughout Presentation.**

1. Discuss operation, care, and maintenance of the Nose Gearbox. REF: A1 H53XX-GAI-000
2. Discuss operation, care, and maintenance of the Accessory Gearbox. REF: A1 H53XX-GAI-000
3. Discuss operation, care, and maintenance of the Main Gearbox. REF: A1 H53XX-GAI-000
4. Discuss operation, care, and maintenance of the Intermediate Gearbox. REF: A1 H53XX-GAI-000
5. Discuss operation, care, and maintenance of the Tail Gearbox. REF: A1 H53XX-GAI-000
6. Discuss operation, care, and maintenance of the Engine. REF: A1 H53XX-GAI-000
7. Discuss operation, care, and maintenance of the Aux Engine Oil Tank (CH-53E only). REF: A1 H53XX-GAI-000
8. Discuss operation, care, and maintenance of the Auxiliary Power Plant. REF: A1 H53XX-GAI-000
9. Discuss operation, care, and maintenance of the Sleeve & Spindle Assemblies (CH-53E only). REF: A1 H53XX-GAI-000

10. Discuss operation, care, and maintenance of the Tail Rotor Head. REF: A1 H53XX-GAI-000

J. SUMMARY: During this period of instruction we covered the operation, care, and maintenance requirements of applicable work center Aircraft Servicing.

K. QUESTION AND ANSWER PERIOD:

CH-53 MAINTENANCE TRAINING



LESSON GUIDE NUMBER: MOS 6113/6173 B.1 (A)(B)(C)

**Periodic maintenance, turnaround
checklist, and daily/servicing
cards**

CH-53 MAINTENANCE TRAINING

LESSON GUIDE NUMBER: MOS 6113/6173 B.1 (A)(B)(C)

YR/MO/DAY

NAME / RANK

[illegible]

- A. Lecture Number:** MOS 6113/6173 B.1 (A)(B)(C)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Periodic maintenance, turnaround checklist, and daily/servicing cards.
- F. Objective:** Trainee will be able to understand the Periodic Maintenance Information Cards and be able to safely perform Turnaround Checklist and Daily/Servicing Requirement Cards by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:**
1. Applicable tools as required by reference materials
- H. Reference:**
1. A1-NAOSH-SAF-000
 2. NA 01-230HMA-6-2
 3. NA 01-230HMA-6-3
 4. A1-H53CE-MRC-000
 5. A1-H53CE-MRC-100
 6. A1-H53CE-MRC-200
- I. Presentation:**
1. Review safety program (A1-NAOSH-SAF-000)
 2. Review Periodic Maintenance Information Cards (NA 01-230HMA-6-3), (A1-H53CE-MRC-000)
 3. Review Turnaround Checklist Requirement Cards (NA 01-230HMA-6-3), (A1-H53CE-MRC-100)
 4. Review Daily/Servicing Requirement Cards (NA 01-230HMA-6-2), (A1-H53CE-MRC-200)
- J. Summary:** During this lesson maintenance personnel were familiarized with the Periodic Maintenance Information, Turnaround Checklist Requirement, and Daily/Servicing Requirement Cards procedures.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.1 (G)(H)

25/50 HOUR INSPECTION

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.1 (G) (H)

25/50 HOUR INSPECTIONS

[illegible]

- A. Lecture Number:** 6113/6173 B.1 (G)(H)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** 25/50-Hour Inspections
- F. Objective:** Trainee will be able to safely perform 25/50 Day Inspection on the CH-53 by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:**
1. Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NAOSH-SAF-000
 2. NA 01-230HMA-6-3
 3. A1-H53CE-MRC-300
- I. Presentation:**
1. Review safety program
(A1-NAOSH-SAF-000)
 2. Review 25 Hour Inspection
(NA 01-230HMA-6-3)
(A1-H53CE-MRC-300)
 3. Review 50 Hour Inspection
(NA 01-230HMA-6-3)
(A1-H53CE-MRC-300)
- J. Summary:** During this lesson maintenance personnel were familiarized with the 25 and 50 Hour inspection procedures.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.1 (L)

DEPRESERVATION INSPECTION

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.1 (L)

DEPRESERVATION INSPECTION

[illegible]

- A. Lecture Number:** 6113/6173 B.1 (L)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Depreservation Inspection
- F. Objective:** Trainee will be able to safely perform Depreservation Inspection by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:**
1. Applicable tools as required by reference materials
- H. Reference:**
2. A1-NAOSH-SAF-000
 3. NA 01-230HMA-6-3
 4. A1-H53CE-MRC-300
- I. Presentation:**
5. Review safety program
(A1-NAOSH-SAF-000)
 6. Review Depreservation Inspection
(NA 01-230HMA-6-3)
(A1-H53CE-MRC-300)
- J. Summary:** During this lesson maintenance personnel were familiarized with the Depreservation Inspection procedures.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.1 (M)(N)

GEARBOX SERVICEABILITY CHECK AND CONTAMINATION INSPECTION

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.1 (M) (N)

GEARBOX SERVICEABILITY CHECK AND CONTAMINATION INSPECTION

[illegible]

- A. Lecture Number:** 6113/6173 B.1 (M)(N)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Gearbox serviceability check and contamination inspection.
- F. Objective:** Trainee will be able to safely perform Gearbox serviceability check and contamination inspection by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:**
1. Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NAOSH-SAF-000
 2. A1-H53BE-GAI-000
 3. A1-H53AD-260-000
 4. A1-H53BE-MRC-300
- I. Presentation:**
1. Review safety program
(A1-NAOSH-SAF-000)
 2. Review Gearbox serviceability check procedures
(A1-H53BE-GAI-000)
(A1-H53AS-260-000)
 3. Review Gearbox contamination inspection procedures
(A1-H53BE-MRC-300)
(A1-H53AD-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the Gearbox serviceability check and contamination inspection procedures.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.1 (I)(J)(K)

7, 14, and 28-DAY INSPECTIONS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.1 (I) (J) (K)

7, 14, and 28-DAY INSPECTIONS

[illegible]

- A. Lecture Number:** 6113/6173 B.1 (I)(J)(K)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** 7, 14, and 28-Day Inspections
- F. Objective:** Trainee will be able to safely perform 7/14/28 Day Inspection on the CH-53 by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:**
1. Applicable tools as required by reference materials
- H. Reference:**
1. A1-NAOSH-SAF-000
 2. NA 01-230HMA-6-3
 3. A1-H53CE-MRC-300
- I. Presentation:**
1. Review safety program
(A1-NAOSH-SAF-000)
 2. Review 7-Day Inspection
(NA 01-230HMA-6-3)
 3. Review 14 Day Inspection
(NA 01-230HMA-6-3)
 4. Review 28-Day Inspection
(NA 01-230HMA-6-3)
(A1-H53CE-MRC-300)
- J. Summary:** During this lesson maintenance personnel were familiarized with the 7,14,and 28 Day inspection procedures.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.2 (A thru C)

TECHNICAL DIRECTIVES
CHANGES/BULLETINS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.2 A-C

TECHNICAL DIRECTIVES/CHANGES/BULLETINS

[illegible]

A. LECTURE NUMBER: CH-53/MOS 6113/6173 B.2 (A thru C)

B. Time: 1 Hour

C. Date prepared: Oct 03

D. Date reviewed and revised: Oct 03

E. Title of Lecture:

1. Technical Directives System
2. Rapid action minor engineering change
3. Incorporates technical directives changes/bullets

F. Objective: Trainee will be able to utilize the technical directives system by using proper procedures outlined in the appropriate reference material

G. Instructional aids:

1. Applicable tools as required by reference material

H. References:

1. NA 00-25-300
2. NAVAIRINST 5215.10
3. OPNAVINSTN 4790.2_

I. Presentation:

1. Review NA 00-25-300
2. Review NAVAIRINST 5215.10, OPNAVINSTN 4790.2_

J. Summary: During this lesson maintenance personnel were familiarized with the technical directives system.

K. Question and Answer period.

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LESSON GUIDE NUMBER: 6113/6173 B.3 (A thru D)

CORROSION CONTROL

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.3 A THRU D

CORROSION CONTROL

[illegible]

A. LECTURE NUMBER: CH-53/MOS 6113/6173 B.3 (A thru D)

B. Time: 1 Hour

C. Date prepared: Oct 03

D. Date reviewed and revised: Oct 03

E. Title of Lecture:

A: Corrosion detection

B: Corrosion prevention

C: Corrective action on corrosion discrepancies

D: Corrosion detection/prevention on support equipment

F. Objective: Trainee will be able to perform Corrosion detection/prevention, corrective action procedures outlined in the appropriate reference material.

G. Instructional aids:

1. Applicable tools as required by reference material

H. References:

1. NA 01-1A-509

2. A1-H53XX-800-000

3. NA 17-1-25

I. Presentation:

1. Review Corrosion manual (NA 01-1A-509)

J. Summary: During this lesson maintenance personnel were familiarized with the corrosion detection/prevention procedures.

K. Question and Answer period.

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LESSON GUIDE NUMBER: 6113/6173 B.4 (A-1)(B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF THE AUXILIARY POWERPLANT SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.4 (A-1) (B-2)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF THE AUXILIARY POWERPLANT SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.4 (A-1) (B-1)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Theory of operation and functional check of the Auxiliary Power Plant system.
- F. Objective:** Trainee will be able to safely perform a functional check on the APP system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-110
 3. A1-H53CE-TTM-100
 4. A1-HE5CE-POM-100
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review Theory of Operation of APP system
(A1-H53AD-TTM-110)
(A1-H53CE-POM-100)
 3. Review Functional Check of APP system
(A1-H53AD-TTM-110)
(A1-H53CE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the operation of Auxiliary power plant system and functional check on the Auxiliary power plant.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.4 (C-1)(C-2)

FAULT ISOLATION OF APP FUEL AND ELECTRICAL SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.4 (C-1) (C-2)

FAULT ISOLATION OF APP FUEL AND ELECTRICAL SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.4 C-1, C-2
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Fault isolation of APP fuel and electrical system
- F. Objective:** Trainee will be able to safely perform a functional check on the APP system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:**
1. Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-110
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review fault isolation of APP fuel system
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
 3. Review fault isolation of APP electrical system
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures for the Auxiliary power plant system.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173
B.4 (D-2)(D-3)(D-4)(D-5)(D-6)

R&R APP ACCESSORIES

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.4 (D-2) (D-3)
(D-4) (D-5) (D-6)

R&R APP ACCESSORIES

[illegible]

- A. Lecture Number:** 6113/6173 B.4 (D-2 thru D-6)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R APP Accessories
- F. Objective:** Trainee will be able to safely remove and replace the APP fuel control, fuel pump, igniter plug, and purge valve by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. NA 19-105B-42
- I. Presentation:**
3. Review safety program
(A1-NOASH-SAF-000)
 4. Review R&R of fuel control/fuel pump
(NA 19-105B-42)
 5. Review R&R of igniter lead
(NA 19-105B-42)
 6. Review R&R of igniter plug
(NA 19-105B-42)
 7. Review R&R of purge valve
(NA 19-105B-42)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to remove and replace the APP accessories.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.4 (D-7)(D-8)

R&R APP COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.4 (D-7) (D-8)

R&R APP COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.4 D-7, D-8
- B. Time:** 1Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R APP components (APP tail pipe and clutch reservoir)
- F. Objective:** Trainee will be able to safely remove and replace APP tail pipe and clutch reservoir by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53CE-220-000
 3. A1-H53CE-260-000
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review R&R tail pipe procedures
(A1-H53CE-220-000)
 3. Review R&R clutch reservoir procedures
(A1-H53CE-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R APP tail pipe and clutch reservoir.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.4 (E-1)

R&R APP TAIL PIPE

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.4 (E-1)

R&R APP TAIL PIPE

[illegible]

- A. Lecture Number:** 6113/6173 B.4 E-1
- B. Time:** 1Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R APP Tail Pipe
- F. Objective:** Trainee will be able to safely remove and replace APP tail pipe by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53CE-220-000
 3. A1-H53CE-260-000
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review R&R tail pipe procedures
(A1-H53CE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R APP tail pipe.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173
B.5 (A-1)(A-2)(A-3)(A-4)(A-5)

THEORY OF OPERATION OF GEAR BOXES

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5
(A-1) (A-2) (A-3) (A-4) (A-5)

THEORY OF OPERATION OF GEAR BOXES

[illegible]

A. Lecture Number: 6113/6173 B.5 A-1, A-2, A-3, A-4, A-5

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: Theory of operation of Gear Boxes

F. Objective: Trainee will be able to understand the theory of operation of the Accessory gear box, Nose gear box, Main gear box, Intermediate gear box, and Tail gear box by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-POM-100
3. A1-H53BE-POM-100

I. Presentation:

1. Review safety program
(A1-NOASH-SAF-000)
2. Review theory of operation of Accessory gearbox
(A1-H53AD-POM-100) (A1-H53BE-POM-100)
3. Review theory of operation of Nose gearbox
(A1-H53AD-POM-100) (A1-H53BE-POM-100)
4. Review theory of operation of Main gearbox
(A1-H53AD-POM-100) (A1-H53BE-POM-100)
5. Review theory of operation of Intermediate gearbox
(A1-H53AD-POM-100)
6. (A1-H53AD-POM-100)
7. Review theory of operation of Tail gearbox
(A1-H53AD-POM-100) (A1-H53BE-POM-100)

J. Summary: During this lesson maintenance personnel were familiarized with the theory of operation of the Gearboxes.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.5 (A-6)

THEORY OF OPERATION OF DRIVE SHAFT SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (A-6)

THEORY OF OPERATION OF DRIVE SHAFT SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.5 A-6
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Theory of operation of Drive Shaft systems
- F. Objective:** Trainee will be able to understand theory of operation of Drive Shaft systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53BE-POM-100
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review theory of operation Drive shaft systems
(A1-H53AD-POM-100)
(A1-H53BE-POM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of the Drive shaft systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173
B.5 (B-1)(B-2)(B-3)(B-4)(B-5)(B-6)

FUNCTIONAL CHECK OF GEAR BOXES & DRIVE SHAFT SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5

(B-1) (B-2) (B-3) (B-4) (B-5) (B-6)

A. FUNCTIONAL CHECK OF GEAR BOXES AND DRIVE SHAFT SYSTEMS

[illegible]

A. Lecture Number: 6113/6173 B.5 B-1, B-2, B-3, B-4, B-5, B-6

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: Functional check of Gear Boxes

F. Objective: Trainee will be able to safely perform functional checks on Accessory gearbox (AGB), Nose gearbox (NGB), Main gearbox (MGB), Intermediate gearbox (IGB), the Tail gearbox (TGB), and Drive Shaft Systems by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-260-000
3. A1-H53BE-GAI-000

I. Presentation:

4. Review safety program.
(A1-NOASH-SAF-000)
5. Review functional check procedures for Accessory Gearbox.
(A1-H53AD-260-000)
(A1-H53BE-GAI-000)
6. Review functional check procedures for Nose Gearbox.
(A1-H53AD-260-000)
(A1-H53BE-GAI-000)
7. Review functional check procedures for Main gearbox.
(A1-H53AD-260-000)
(A1-H53BE-GAI-000)
8. Review functional check procedures for Intermediate gearbox.
(A1-H53AD-260-000)
(A1-H53BE-GAI-000)

9. Review functional check procedures for Tail gearbox.
(A1-H53AD-260-000)
(A1-H53BE-GAI-000)
10. Review functional check procedures for Drive Shaft Systems.
(A1-H53AD-260-000)
(A1-H53BE-GAI-000)

J. Summary: During this lesson maintenance personnel were familiarized with the functional check procedures for the gearboxes.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.5 (C-1.1)(C-1.2)

FAULT ISOLATION OF AGB LUBE AND INDICATOR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (C-1.1) (C-1.2)

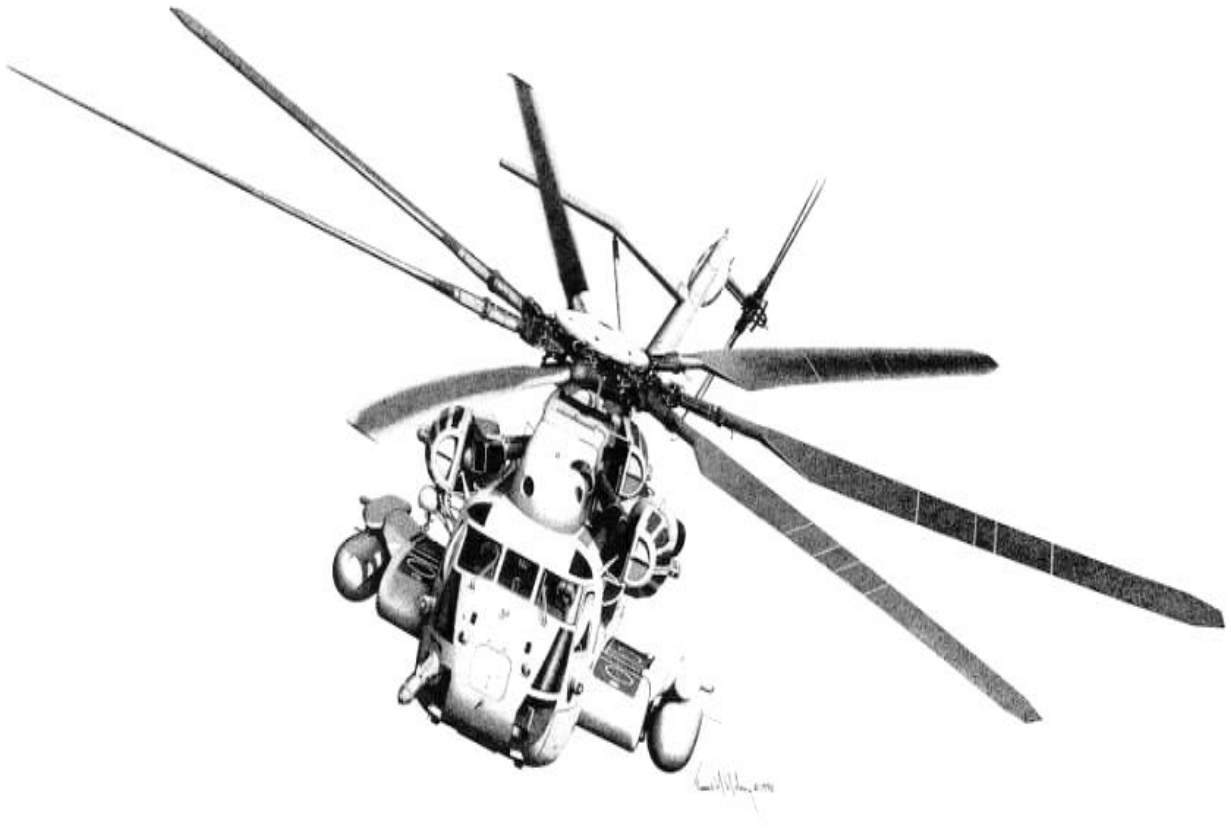
FAULT ISOLATION OF AGB LUBE AND INDICATOR SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.5 C-1.1, C-1.2
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Fault isolation of AGB lube and indicator system
- F. Objective:** Trainee will be able to safely fault isolate AGB lube and indicator systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-120
 3. A1-H53BE-TTM-100
- I. Presentation:**
4. Review safety program
(A1-NOASH-SAF-000)
 5. Review fault isolation of AGB lube system
(A1-H53AD-TTM-120)
(A1-H53BE-TTM-100)
 6. Review fault isolation of AGB indicator system
(A1-H53AD-TTM-120)
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the AGB lube and indicator systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (C-2.1)(C-2.2)

FAULT ISOLATION OF NGB LUBE AND INDICATOR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (C-2.1) (C-2.2)

FAULT ISOLATION OF NGB LUBE AND INDICATOR SYSTEMEM

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (C-2.1, C-2.2)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- E. Title:** Fault isolation of NGB lube and indicator system
- F. Objective:** Trainee will be able to safely fault isolate NGB lube and indicator systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-120
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review fault isolation of NGB lube system.
(A1-H53AD-TTM-120)
(A1-H53BE-TTM-100)
 3. Review fault isolation of NGB indicator system.
(A1-H53AD-TTM-120)
(A1-H53BE-TTM-100 2)
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the NBGB lube and indicator systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (E-3.1)(E-3.2)

FAULT ISOLATION OF NGB LUBE AND INDICATOR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-3.1) (E-3.2)

FAULT ISOLATION OF NGB LUBE AND INDICATOR SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (C-3.1, C-3.2)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Fault isolation of MGB lube and indicator system
- F. Objective:** Trainee will be able to safely fault isolate MGB lube and indicator systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-120
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review fault isolation of MGB lube system.
(A1-H53AD-TTM-120)
(A1 H53BE-TTM-100)
 3. Review fault isolation of MGB indicator system.
(A1-H53AD-TTM-120)
(A1-H53AD-TTM-120)
(A1-H53AD-TTM-120)
(A1-H53BE-TTM-100)
(A1-H53BE-TTM-100)
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the MGB lube and indicator systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (C-4.1)(C-4.2)

FAULT ISOLATION OF IGB LUBE AND INDICATOR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (C-4.1) (C-4.2)

FAULT ISOLATION OF IBB LUBE AND INDICATOR SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (C-4.1, C-4.2)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Fault isolation of IGB lube and indicator system
- F. Objective:** Trainee will be able to safely fault isolate IGB lube and indicator systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53CE-TTM-100
- I. Presentation:**
3. Review safety Program.
(A1-NOASH-SAF-000)
 4. Review fault isolation of IGB lube system.
(A1-H53BE-TTM-100)
 5. Review fault isolation of IGB indicator system.
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the IGB lube and indicator systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (C-5.1)(C-5.2)

FAULT ISOLATION OF TGB LUBE AND INDICATOR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (C-5.1) (C-5.2)

FAULT ISOLATION OF TGB LUBE AND INDICATOR SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.5 C-5.1, C-5.2
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Fault isolation of TGB lube and indicator system
- F. Objective:** Trainee will be able to safely fault isolate TGB lube and indicator systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review fault isolation of TGB lube system.
(A1-H53BE-TTM-100)
 3. Review fault isolation of TGB indicator system.
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the TGB lube indicator systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173
B.5 (C-6.1)(C-6.2)(C-6.3)

FAULT ISOLATION OF FLEX COUPLING, VISCIOUS DAMPERS, AND DISCONNECT COUPLING

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5
(C-6.1) (C-6.2) (C-6.3)

FAULT ISOLATION OF FLEX COUPLING, VISCOUS DAMPERS, AND DISCONNECT COUPLING

[illegible]

A. Lecture Number: 6113/6173 B.5 (C-6.1, C-6.2, C-6.3)

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: Fault isolation of Flex coupling, viscous dampers, and disconnect coupling

F. Objective: Trainee will be able to safely fault isolate Flex coupling, viscous dampers, and disconnect coupling by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-260-000
3. A1-H53BE-GAI-000
4. A1-H53BE-260-000

I. Presentation:

1. Review safety program.
(A1-NOASH-SAF-000)
2. Review fault isolation of Flex coupling.
(A1-H53AD-260-000)
(A1-H53BE-260-000)
3. Review fault isolation of viscous damper.
(A1-H53BE-TTM-100)
4. Review fault isolation of Disconnect coupling.
(A1-H53AD-260-000)
(A1-H53BE-260-000)

J. Summary: During this lesson maintenance personnel were familiarized with the fault isolation procedures of the Flex coupling, viscous dampers, and disconnect coupling.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.5
(D-1.1)(D-1.2)(D-1.3)

R&R OF AGB AND RELATED COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5
(D-1.1) (D-1.2) (D-1.3)

R&R OF AGB AND RELATED COMPONENTS

[illegible]

A. Lecture Number: 6113/6173 B.5 (D-1.1, D-1.2, D-1.3)

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: R&R of AGB and related components (CH-53E)

F. Objective: Trainee will be able to safely R&R AGB, chip detector/bulb, and oil filters by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53BE-260-000

I. Presentation:

1. Review safety program.
(A1-NOASH-SAF-000)
2. Review R&R AGB.
(A1-H53BE-260-000)
3. Review R&R chip detector/bulb.
(A1-H53BE-260-000)
4. Review R&R oil filters.
(A1-H53BE-260-000)

J. Summary: During this lesson maintenance personnel were familiarized with the procedures to R&R AGB, chip detector/bulb, and oil filters.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.5 (D-2.1)(D-2.2)

R&R OF APP CLUTCH AND DRIVE SHAFT

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (D-2.1) (D-2.2)

R&R OF APP CLUTCH AND DRIVE SHAFT

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (D-2.1, D-2.2)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of APP clutch and drive shaft (CH-53E)
- F. Objective:** Trainee will be able to safely R&R APP clutch and drive shaft by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-260-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R APP clutch.
(A1-H53BE-260-000)
 3. Review R&R APP drive shaft.
(A1-H53BE-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R APP clutch and APP drive shaft.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173
B.5 (D-3.2)(D-3.3)(D-3.4)

R&R OF NGB RELATED COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5
(D-3.2) (D-3.3) (D-3.4)

R&R OF NGB RELATED COMPONENTS

[illegible]

A. Lecture Number: 6113/6173 B.5 (D-3.2, D-3.3, D-3.4)

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: R&R of NGB related components (CH-53E)

F. Objective: Trainee will be able to safely R&R NGB fan belts, idler pulley, and chip detector by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53BE-260-000

I. Presentation:

1. Review safety program.
(A1-NOASH-SAF-000)
2. Review R&R NGB fan belts.
(A1-H53BE-260-000)
3. Review R&R NGB idler pulley.
(A1-H53BE-260-000)
4. Review R&R NGB chip detector.
(A1-H53BE-260-000)

J. Summary: During this lesson maintenance personnel were familiarized with the procedures to R&R NGB, fan belts, idler pulley, and chip detector.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.5 (D-4.3)(D-4.4)

R&R OF MGB RELATED COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (D-4.3) (D-4.4)

R&R OF MGB RELATED COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (D-4.3, D-4.4)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of MGB related components (CH-53E)
- F. Objective:** Trainee will be able to safely R&R MGB lube filters and chip detectors by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-260-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R MGB lube filters.
(A1-H53BE-260-000)
 3. Review R&R MGB chip detectors.
(A1-H53BE-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R MGB lube filters and chip detectors.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (D-5.1)

R&R OF MGB OIL COOLER

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (D-5.1)

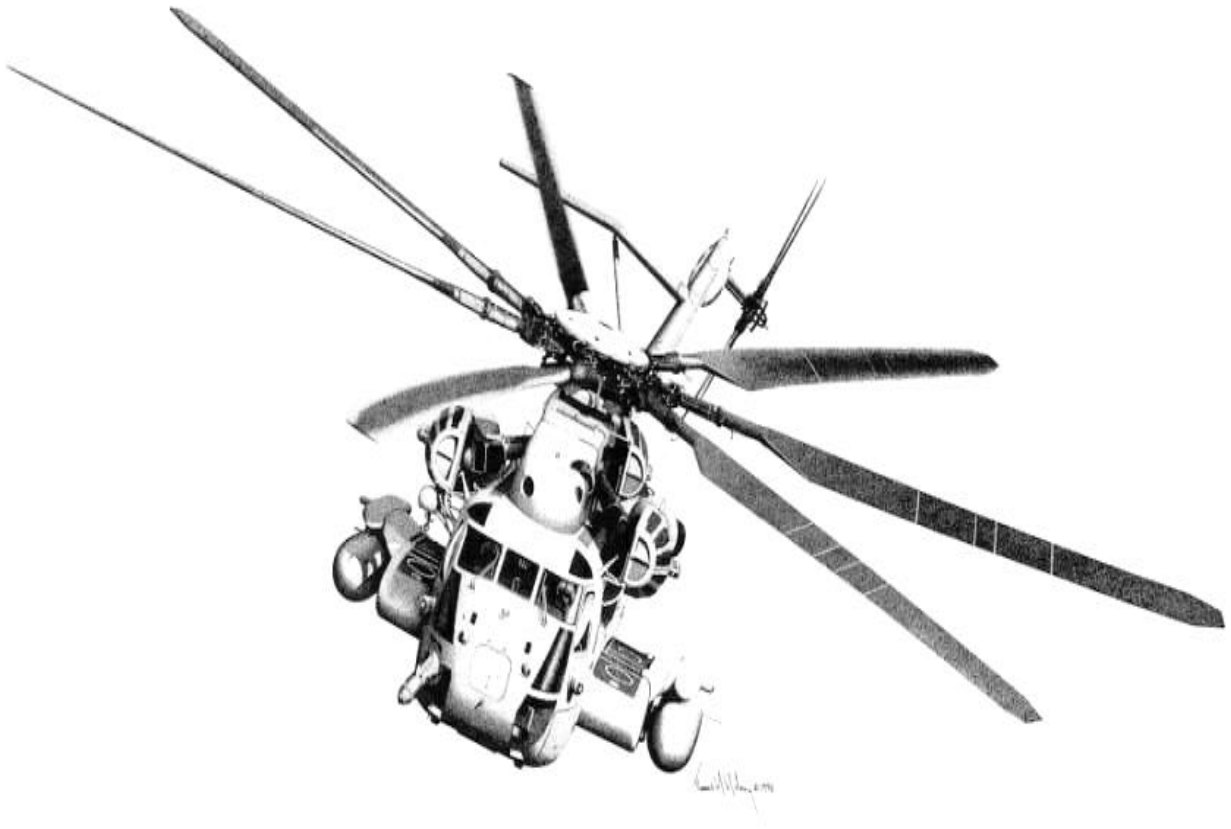
R&R OF MGB OIL COOLER

[illegible]

- A. Lecture Number:** 6113/6173 B.5 D-5.1
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of MGB oil cooler (CH-53E)
- F. Objective:** Trainee will be able to safely R&R MGB oil cooler by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-260-000,
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R MGB oil cooler.
(A1-H53BE-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R MGB oil cooler.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (D-6.3)

R&R OF IGB CHIP DETECTOR/TEMP BULB

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (D-6.3)

R&R OF IGB CHIP DETECTOR/TEMP BULB

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (D-6.3)
- B. Time:** 5 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of IGB chip detector/temp bulb (CH-53E)
- F. Objective:** Trainee will be able to safely R&R IGB chip detector by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-260-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R IGB chip detector.
(A1-H53BE-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R IGB chip detector.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (D-7.2)(D-7.3)

R&R OF TGB COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (D-7.2) (D-7.3)

R&R OF TGB COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (D-7.2, D-7.3)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of TGB components (CH-53E)
- F. Objective:** Trainee will be able to safely R&R TGB sight gauge and chip detector/temp bulb by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-260-00
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R TGB sight gauge.
(A1-H53BE-260-000)
 3. Review R&R TGB chip detector/temp bulb.
(A1-H53BE-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R TGB sight gauge and chip detector/temp bulb.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (D-8.1)

R&R OF INPUT DRIVE SHAFT

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (D-8.1)

R&R OF INPUT DRIVE SHAFT

[illegible]

- A. Lecture Number:** 6113/6173 B.5 D-8.1
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of input drive shaft (CH-53E)
- F. Objective:** Trainee will be able to safely R&R input drive shaft by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-260-000
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review R&R input drive shaft
(A1-H53BE-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R input drive shaft.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (D-9.1)(D-9.3)

R&R OF TAIL DRIVE SHAFT AND RELATED COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (D-9.1) (D-9.3)

R&R OF TAIL DRIVE SHAFT AND RELATED COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (D-9.1, D-9.3)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of tail drive shaft and related components (CH-53E)
- F. Objective:** Trainee will be able to safely R&R tail drive shaft, viscous damper, and disconnect coupling by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-260-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R tail drive shaft.
(A1-H53BE-260-000)
 3. Review R&R viscous damper.
(A1-H53BE-260-000)
 4. Review R&R disconnect coupling.
(A1-h53BE-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R tail drive shaft, viscous damper, and disconnect coupling.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173
B.5 (E-1.1)(E-1.2)(E-1.3)

**R&R OF AGB RELATED COMPONENTS
CH-53D**

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5
(E-1.1) (E-1.2) (E-1.3)

R&R OF AGB RELATED COMPONENTS

[illegible]

A. Lecture Number: 6113/6173 B.5 (E-1.1, E-1.2, E-1.3)

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: R&R of AGB related components (CH-53A/D)

F. Objective: Trainee will be able to safely R&R AGB chip detector/bulb, oil filters, and clutch by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-260-000

I. Presentation:

1. Review safety program.
(A1-N OASH-SAF-000)
2. Review R&R AGB chip detector/bulb.
(A1-H53AD-260-000)
3. Review R&R oil filters.
(A1-H53AD-260-000)
4. Review R&R clutch.
(A1-H53AD-260-000)

J. Summary: During this lesson maintenance personnel were familiarized with the procedures to R&R AGB chip detector/bulb, oil filters, and clutch.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.5 (E-1.4)

R&R OF APP DRIVE SHAFT CH-53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-1.4)

R&R OF APP DRIVE SHAFT CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (E-1.4)
- B. Time:** 5 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of APP drive shaft (CH-53 A/D)
- F. Objective:** Trainee will be able to safely R&R APP drive shaft by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-260-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R APP drive shaft.
(A1-H53AD-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R APP drive shaft.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173
B.5 (E-2.2)(E-2.3)(E-2.4)

R&R OF NGB RELATED COMPONENTS
CH-53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-2.2) (E-2.4)

R&R NGB RELATED COMPONENTS CH-53D

[illegible]

A. Lecture Number: 6113/6173 B.5 (E-2.2, E-2.3, E-2.4)

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: R&R of NGB related components (CH-53A/D)

F. Objective: Trainee will be able to safely R&R NGB fan belts, idler pulley, and chip detector by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference material

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-260-000

I. Presentation:

1. Review safety program.
(A1-NOASH-SAF-000)
2. Review R&R NGB fan belts.
(A1-H53AD-260-000)
3. Review R&R NGB idler pulley.
(A1-H53AD-260-000)
4. Review R&R NGB chip detector.
(A1-H53AD-260-000)

J. Summary: During this lesson maintenance personnel were familiarized with the procedures to R&R NGB, fan belts, idler pulley, and chip detector.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173
B.5 (E-3.2)(E-3.3)(E-3.4)(E-3.5)

R&R OF MGB RELATED COMPONENTS
CH53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5
(E-3.2) (E-3.3) (E-3.4) (E-3.5)

R&R OF MGB RELATED COMPONENTS CH-53D

[illegible]

A. Lecture Number: 6113/6173 B.5 (E-3.2, E-3.3, E-3.4, E-3.5)

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: R&R of MGB related components (CH-53A/D)

F. Objective: Trainee will be able to safely R&R MGB lube pump, lube filters chip detector, and temp bulb/plug stat by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-260-000

I. Presentation:

1. Review safety program.
(A1-NOASH-SAF-000)
2. Review R&R MGB lube pump.
(A1-H53AD-260-000)
3. Review R&R MGB lube filters.
(A1-H53AD-260-000)
4. Review R&R MGB chip detectors.
(A1-H53AD-260-000)
5. Review R&R MGB temp bulb/plug stat.
(A1-H53AD-260-000)

J. Summary: During this lesson maintenance personnel were familiarized with the procedures to R&R MGB lube pump, lube filters, chip detectors, and temp bulb/plug stat.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.5 (E-3.6)(E-3.7)

**R&R OF MGB OIL COOLER AND OIL
COOLER DRIVE SHAFT CH-53D**

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-3.6) (E-3.7)

R&R OF MGB OIL COOLER AND OIL COOLER
DRIVE SHAFT CH-53D

[illegible]

A. Lecture Number: 6113/6173 B.5 (E-3.6, E-3.7)

B. Time: 1 Hour

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: R&R of MGB oil cooler and oil cooler drive shaft (CH-53A/D)

F. Objective: Trainee will be able to safely R&R MGB oil cooler and oil cooler drive shaft by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

A1-NOASH-SAF-000

A1-H53AD-260-000

I. Presentation:

Review safety program.

(A1-NOASH-SAF-000)

Review R&R MGB oil cooler.

(A1-H53AD-260-000)

Review R&R MGB oil cooler drive shaft.

(A1-H53AD-260-000)

J. Summary: During this lesson maintenance personnel were familiarized with the procedures to R&R MGB oil cooler and oil cooler drive shaft.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.5 (E-4.2)

R&R OF SIGHT GAUGE CH-53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-4.2)

R&R OF SIGHT GAUGE CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.5 E-4.2
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R of Sight Gauge (CH-53D)
- F. Objective:** Trainee will be able to safely R&R IGB Sight Gauge by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-260-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R Sight Gauge.
(A1-H53AD-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R Sight Gauge.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (E-4.3)

**R&R OF IGB CHIP DETECTOR/TEMP
BULB CH-53D**

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-4.3)

R&R OF IGB CHIP DETECTOR/TEMP BULB CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (E-4.3)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** &R of IGB Chip Detector/Temp Bulb (CH-53D)
- F. Objective:** Trainee will be able to safely R&R IGB Chip Detector/Temp Bulb by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-260-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R IGB Chip Detector/Temp Bulb.
(A1-H53AD-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R IGB Chip Detector/Temp Bulb.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (E-5.2)(E-5.3)

**R&R TGB SIGHT GAUGE AND CHIP
DETECTOR/TEMP BULB**

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-5.2)(E-5.3)

R&R TGB SIGHT GAUGE AND CHIP DETECTOR/TEMP BULB

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (E-5.2)(E-5.3)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R TGB sight gauge and chip detector/temp bulb
- F. Objective:** Trainee will be able to safely R&R TGB sight gauge and chip detector/temp bulb by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NAOSH-SAF-000
 2. A1-H53AD-260-000
- I. Presentation:**
1. Review safety program.
(A1-NAOSH-SAF-000)
 2. Review R&R TGB sight gauge.
(A1-H53AD-260-000)
 3. Review R&R Chip detector/temp bulb.
(A1-H53AD-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R TGB sight gauge and chip detector/temp bulb.
- K. Questions and Answer Period:**

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MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.5 (E-6.1)(E-6.2)

R&R INPUT DRIVE SHAFT AND BEARING SUPPORT ASSEMBLY CH-53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-6.1)(E-6.2)

R&R INPUT DRIVE SHAFT AND BEARING SUPPORT ASSEMBLY CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (E-6.1)(E-6.2)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R Input Drive Shaft and Bearing Support Assembly CH-53D
- F. Objective:** Trainee will be able to safely R&R Input Drive Shaft and Bearing Support Assembly by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NAOSH-SAF-000
 2. A1-H53AD-260-000
- I. Presentation:**
1. Review safety program.
(A1-NAOSH-SAF-000)
 2. Review R&R Input Drive Shaft.
(A1-H53AD-260-000)
 3. Review R&R Bearing Support Assembly.
(A1-H53AD-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R Input Drive Shaft and Bearing Support Assembly.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.5 (E-6.3)(E-6.4)

R&R TAIL DRIVESHAFT AND BEARING SUPPORT ASSEMBLY

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.5 (E-6.3)(E-6.4)

R&R TAIL DRIVESHAFT AND BEARING SUPPORT ASSEMBLY

[illegible]

- A. Lecture Number:** 6113/6173 B.5 (E-6.3)(E-6.4)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R tail driveshaft and bearing support assembly
- F. Objective:** Trainee will be able to safely R&R tail driveshaft and bearing support assembly by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NAOSH-SAF-000
 2. A1-H53AD-260-000
- I. Presentation:**
1. Review safety program.
(A1-NAOSH-SAF-000)
 2. Review R&R tail driveshaft.
(A1-H53AD-260-000)
 3. Review R&R bearing support assembly.
(A1-H53AD-260-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R tail driveshaft and bearing support assembly.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (A-1)(B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF THE AUXILIARY POWER PLANT SYSTEM H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (A-1) (B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF THE AUXILIARY POWER PLANT SYSTEM

[illegible]

- A. Lecture Number:** CH-53/MOS 6113/B.6 (A-1, B-1)
- B. Time:** 1 Hour
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Theory of operation and Functional check of the Auxiliary Power Plant (APP) system
- F. Objective:** Trainee will be familiar with the operation of the APP system and will be able to safely perform a functional check on the APP system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53AD-TTM-110
 4. A1-H53BE-POM-100
 5. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review Theory of operation of Auxiliary Power Plant (APP) system
(A1-H53AD-POM-100)
(A1-H53BE-POM-100)
 3. Review Fault isolation of Auxiliary Power Plant (APP) system
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the operation of the Auxiliary Power Plant system and performing a functional test on the Auxiliary Power Plant.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (C-1)(C-2)(C-3)

FAULT ISOLATION OF MAIN ENGINE SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (C-1) (C-2) (C-3)

FAULT ISOLATION OF MAIN ENGINE SYSTEMS

[illegible]

A. Lecture Number: 6113/6173 B.6 (C-1, C-2, C-3)

B. Time: 1 HOUR

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: FAULT ISOLATION OF MAIN ENGINE SYSTEMS

F. Objective: Trainee will be able to safely fault isolate Main Engine lube, fuel, and air systems by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-TTM-110
3. A1-H53AD-TTM-120
4. A1-H53BE-TTM-100
5. A1-H53BE-TTM-100
6. A1-H53BE-TTM-100

I. Presentation:

1. Review safety program.
(A1-NOASH-SAF-000)
2. Review fault isolation of main engine lube system.
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
(A1-H53BE-TTM-100)
(A1-H53BE-TTM-100)
3. Review fault isolation of main engine fuel system.
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
4. Review fault isolation of main engine air system.
(A1-H53AD-TTM-120)
(A1-H53BE-TTM-100)

J. Summary: During this lesson maintenance personnel were familiarized with the fault isolation procedures of the main engine lube, fuel, and air systems.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.6 (C-4.1)(C-4.2)

FAULT ISOLATION OF MAIN ENGINE CONTROL SYSTEM AND CONTROL RIG

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (C-4.1) (C-4.2)

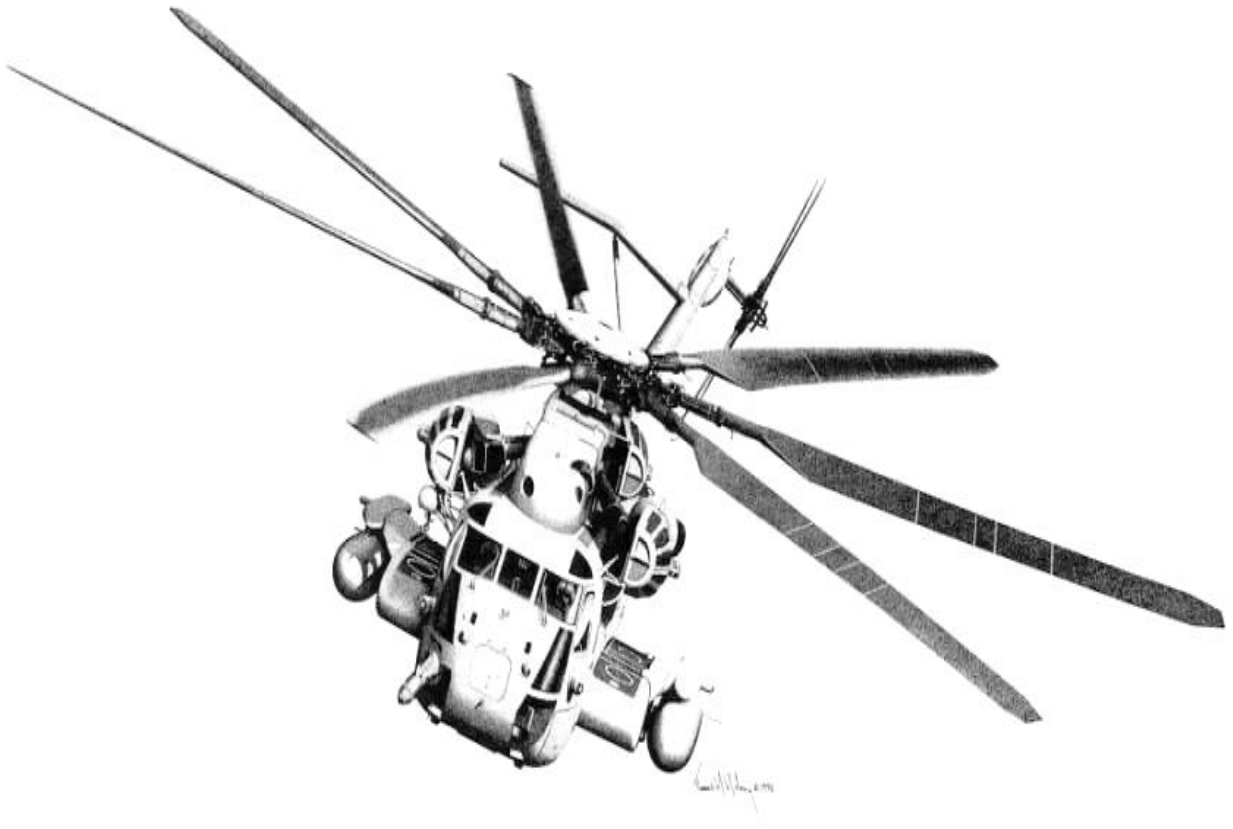
FAULT ISOLATION OF MAIN ENGINE CONTROL SYSTEM AND CONTROL RIG

[illegible]

- A. Lecture Number:** 6113/6173 B.6 (C-4.1, C-4.2)
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF MAIN ENGINE CONTROL SYSTEM AND CONTROL RIG
- F. Objective:** Trainee will be able to safely fault isolate Main Engine control system and control rig by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-110
 3. A1-H53AD-220-000
 4. A1-H53BE-TTM-100
 5. A1-H53BE-220-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review fault isolation of main engine control system.
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
 3. Review fault isolation of main engine control rig.
(A1-H53AD-220-000)
(A1-H53BE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the main engine control system and main engine rig.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (C-5)(C-6)

FAULT ISOLATION OF MAIN ENGINE INDICATOR AND START SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (C-5) (C-6)

FAULT ISOLATION OF MAIN ENGINE INDICATOR AND START SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.6 C-5, C-6
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF MAIN ENGINE INDICATOR AND START SYSTEMS
- F. Objective:** Trainee will be able to safely fault isolate Main Engine indicator and start system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-110
 3. A1-H53AD-TTM-110
 4. A1-H53BE-TTM-100
 5. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review fault isolation of main engine indicator system.
(A1-H53AD-TTM-110)
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
(A1-H53BE-TTM-100)
 3. Review fault isolation of main engine start system.
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the main engine indicator and start systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (C-7)

MAIN ENGINE CONTROL QUADRANT

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (C-7)

MAIN ENGINE CONTROL QUADRANT

[illegible]

- A. Lecture Number:** 6113/6173 B.6 C-7
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF MAIN ENGINE CONTROL QUADRANT
- F. Objective:** Trainee will be able to safely fault isolate main engine control quadrant by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-110
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review fault isolation of Main engine control quadrant
(A1-H53AD-TTM-110)
(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the main engine control quadrant.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (D-1.1)(D-1.2)

R&R ENGINES

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (D-1.1) (D-1.2)

R&R ENGINES

[illegible]

- A. Lecture Number:** 6113/6173 B.6 (D-1.1,D-1.2)
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R OF ENGINES
- F. Objective:** Trainee will be able to safely R&R an engine by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-220-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R No.1 or No.3 engine.
(A1-H53BE-220-000)
 3. Review R&R No.2 engine.
(A1-H53BE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R an engine.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (D-10.1)(D-10.2)

R&R LUBE PUMP AND LUBE FILTER

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (D-10.1) (D-10.2)

R&R LUBE PUMP AND LUBE FILTER

[illegible]

- A. Lecture Number:** 6113/6173 B.6 (D-10.1, D-10.2)
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R LUBE PUMP AND LUBE FILTER
- F. Objective:** Trainee will be able to safely R&R lube pump and lube filter by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-220-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R lube pump.
(A1-H53BE-220-000)
 3. Review R&R lube filter.
(A1-H53BE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R lube pump and lube filter.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (D-2)

R&R FUEL CONTROL

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (D-2)

R&R FUEL CONTROL

[illegible]

- A. Lecture Number:** 6113/6173 B.6 (D-2)
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R OF ENGINE FUEL CONTROL
- F. Objective:** Trainee will be able to safely R&R an engine fuel control by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-220-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R engine fuel control.
(A1-H53BE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R an engine fuel control.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (D-3.1)(D-3.2)

R&R FUEL PUMPS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (D-3.1) (D-3.2)

R&R FUEL PUMPS

[illegible]

- A. Lecture Number:** 6113/6173 B.6 (D-3.1, D-3.2)
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R OF ENGINE FUEL PUMPS
- F. Objective:** Trainee will be able to safely R&R an engine fuel pump by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-220-000
 3. A1-H53BE-460-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R engine fuel boost pump.
(A1-H53BE-460-000)
 3. Review R&R engine fuel pump.
(A1-H53BE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R boost pump and engine fuel pump.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (D-4)

R&R OF ENGINE FLEX SHAFT

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (D-4)

R&R OF ENGINE FLEX SHAFT

[illegible]

- A. Lecture Number:** 6113/6173 B.6 D-4
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R OF ENGINE FLEX SHAFT
- F. Objective:** Trainee will be able to safely R&R an engine flex shaft by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-220-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R engine flex shaft.
(A1-H53BE-460-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R engine flex shaft.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (D-6.1)(D-6.2)

R&R OF FUEL FILTERS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (D-6.1) (D-6.2)

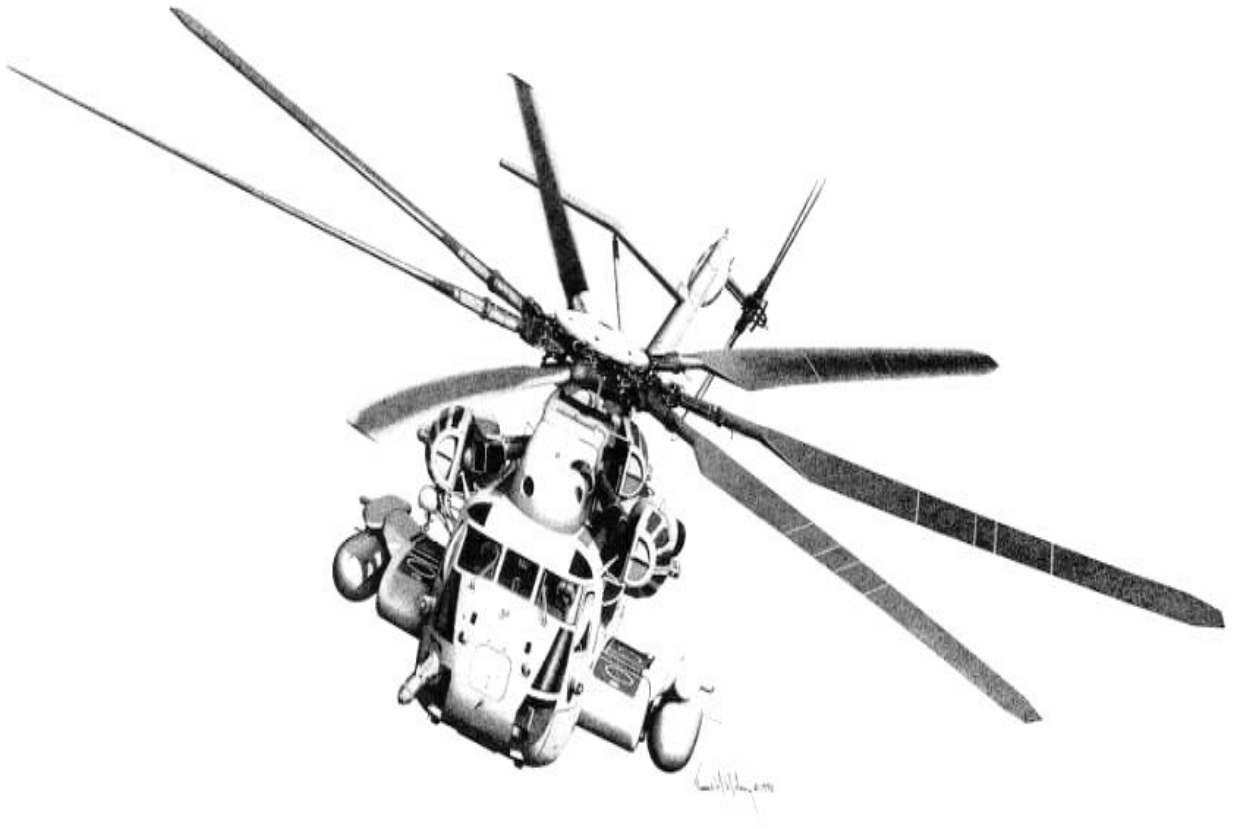
R&R OF FUEL FILTERS

[illegible]

- A. Lecture Number:** 6113/6173 B.6 (D-6.1, D-6.2)
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R OF FUEL FILTERS
- F. Objective:** Trainee will be able to safely R&R fuel filters and engine fuel filters by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-220-000
 3. A1-H53BE-460-000
- I. Presentation:**
1. Review safety program
(A1-NOASH-SAF-000)
 2. Review R&R fuel filters
(A1-H53BE-460-000)
 3. Review R&R engine fuel filter
(A1-H53BE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R fuel filters and engine fuel filters.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (D-7)(D-8)

R&R OF ENGINE TAIL PIPE AND CONTROL CABLE

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (D-7) (D-8)

R&R OF ENGINE TAIL PIPER AND CONTROL CABLE

[illegible]

- A. Lecture Number:** 6113/6173 B.6 (D-7, D-8)
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R OF ENGINE TAIL PIPE AND CONTROL CABLE
- F. Objective:** Trainee will be able to safely R&R engine tail pipe and control cable by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-220-000
 3. A1-H53BE-220-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review R&R engine tail pipe.
(A1-H53BE-220-000)
 3. Review R&R engine control cable.
(A1-H53BE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R engine tail pipe and control cable.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.6 (D-9)

RIG ENGINE CONTROLS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.6 (D-9)

RIG ENGINE CONTROLS

[illegible]

- A. Lecture Number:** 6113/6173 B.6 D-9
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** RIG ENGINE CONTROLS
- F. Objective:** Trainee will be able to safely rig engine controls by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-220-000
- I. Presentation:**
1. Review safety program.
(A1-NOASH-SAF-000)
 2. Review rig engine controls.
(A1-H53BE-220-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to rig engine controls.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.7 (A-1)(B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF FLIGHT CONTROL SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.7 (A-1) (B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF FLIGHT CONTROL SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.7 A-1, B-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** THEORY OF OPERATION AND FUNCTIONAL CHECK OF FLIGHT CONTROLS SYSTEM
- F. Objective:** Trainee will be familiar with the operation of flight control systems and be able to safely perform functional checks on the flight control systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53AD-TTM-100
 4. A1-H53BE-POM-100
 5. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review theory of operation of flight control systems. (A1-H53AD-POM-100) (A1-H53BE-POM-100)
 3. Review functional check of flight control system. (A1-H53AD-TTM-100) (A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of the flight control system and performing a function check of the flight control system.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.7 (C-1)(C-2)

FAULT ISOLATION OF FLIGHT CONTROLS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.7 (C-1) (C-2)

FAULT ISOLATION OF FLIGHT CONTROLS

[illegible]

- A. Lecture Number:** 6113/6173 B.7 C-1, C-2
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF MAIN ROTOR AND ROTARY RUDDER FLIGHT CONTROLS
- F. Objective:** Trainee will be able to safely fault isolate Main Rotor and Rotary rudder flight controls by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-100
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program (A1-NOASH-SAF-000)
 2. Review fault isolation of main rotor flight controls (A1-H53AD-TTM-100) (A1-H53BE-TTM-100)
 3. Review fault isolation of rotary rudder flight controls (A1-H53AD-TTM-100)(A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the main rotor and rotary rudder flight controls.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.7 (D-1)(D-2)

R&R AND RIG MAIN ROTOR FLIGHT CONTROLS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.7 (D-1) (D-2)

R&R AND RIG MAIN ROTOR FLIGHT CONTROLS

[illegible]

- A. Lecture Number:** 6113/6173 B.7 D-1, D-2
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R AND RIG MAIN ROTOR FLIGHT CONTROLS
- F. Objective:** Trainee will be able to safely R&R and rig Main Rotor flight controls by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-140-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R main rotor flight controls. (A1-H53BE-140-000)
 3. Review rig main rotor flight controls. (A1-H53BE-140-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R and rig main rotor flight controls.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.7 (D-3)(D-4)

R&R AND RIG ROTARY RUDDER FLIGHT CONTROLS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.7 (D-3) (D-4)

R&R AND RIG ROTARY RUDDER FLIGHT CONTROLS

[illegible]

- A. Lecture Number:** 6113/6173 B.7 D-3, D-4
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R AND RIG ROTARY RUDDER FLIGHT CONTROLS
- F. Objective:** Trainee will be able to safely R&R and rig Rotary rudder flight controls by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-140-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R rotary rudder flight controls. (A1-H53BE-140-000)
 3. Review rig rotary rudder flight controls. (A1-H53BE-140-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R and rig rotary rudder flight controls.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.7 (E-1)(E-2)

R&R AND RIG MAIN ROTOR FLIGHT CONTROLS (CH-53D)

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.7 (E-1) (E-2)

R&R AND RIG MAIN ROTOR FLIGHT CONTROLS CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.7 E-1, E-2
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R AND RIG MAIN ROTOR FLIGHT CONTROLS
- F. Objective:** Trainee will be able to safely R&R and rig Main Rotor flight controls by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-140-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R main rotor flight controls. (A1-H53AD-140-000)
 3. Review rig main rotor flight controls. (A1-H53AD-140-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R and rig main rotor flight controls.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.7 (E-3)(E-4)

R&R AND RIG ROTARY RUDDER FLIGHT CONTROLS (CH-53D)

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.7 (E-3) (E-4)

R&R AND RIG ROTARY RUDDER FLIGHT CONTROLS CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.7 E-3, E-4
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R AND RIG ROTARY RUDDER FLIGHT CONTROLS
- F. Objective:** Trainee will be able to safely R&R and rig Rotary rudder flight controls by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-140-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R rotary rudder flight controls. (A1-H53AD-140-000)
 3. Review rig rotary rudder flight controls. (A1-H53AD-140-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R and rig rotary rudder flight controls.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (A-1)(B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF MAIN ROTOR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (A-1) (B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF MAIN ROTOR SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.8 A-1, B-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** THEORY OF OPERATION AND FUNCTIONAL CHECK OF MAIN ROTOR SYSTEM
- F. Objective:** Trainee will be familiar with the operation of main rotor systems and be able to safely perform functional checks on the main rotor systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53AD-150-000
 4. NA 01-230HMA-1
 5. A1-H53BE-POM-100
 6. A1-H53BE-150-100
 7. A1-H53BE-NFM-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review theory of operation of main rotor systems (A1-H53AD-POM-100), (A1-H53BE-POM-100)
 3. Review functional check of main rotor system. (A1-H53AD-150-000), (A1-H53AD-150-000), (NA 01-230HMA-1) (A1-H53BE-150-000), (A1-H53BE-NFM-700)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of the main rotor system and performing a function check of the main rotor system.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (C-1.1)(C-1.2)(C-1.3)

FAULT ISOLATION OF MAIN ROTOR SYSTEM COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8
(C-1.1) (C-1.2) (C-1.3)

FAULT ISOLATION OF MAIN ROTOR SYSTEM COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.7 C-1.1, C-1.2, C-1.3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF MAIN ROTOR SYSTEM COMPONENTS
- F. Objective:** Trainee will be able to safely fault isolate the Swash plate, Sleeve & Spindle, and Sleeve & Yoke Assemblies by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. NA 01-230HMA-1
 3. A1-H53BE-NFM-700
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review fault isolation of Swash plate. (NA 01-230HMA-1), (A1-H53BE-NFM-700)
 3. Review fault isolation of Sleeve & spindle assembly. (A1-H53BE-NFM-700)
 4. Review fault isolation of Sleeve & yoke assembly. (NA 01-230HMA-1)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the main rotor system components.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (C-1.4)

FAULT ISOLATION OF DAMPER SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (C-1.4)

FAULT ISOLATION OF DAMPER SYSTEM

[illegible]

A. Lecture Number: 6113/6173 B.8 C-1.4

B. Time: 1 HOUR

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: FAULT ISOLATION OF DAMPER SYSTEM

F. Objective: Trainee will be able to safely fault isolate damper system (service & leak check) by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials.

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-150-000
3. A1-H53BE-TTM-100

I. Presentation:

1. Review safety program. (A1-NOASH-SAF-000)
2. Review fault isolation of damper system. (A1-H53AD-150-000), (A1-H53AD-150-000), (A1-H53BE-TTM-100)

J. Summary: During this lesson maintenance personnel were familiarized with the fault isolation procedures of the damper system.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.8 (C-2)

FAULT ISOLATION OF MAIN ROTOR BLADE

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (C-2)

FAULT ISOLATION OF MAIN ROTOR BLADE

[illegible]

A. Lecture Number: 6113/6173 B.8 C-2

B. Time: 1 HOUR

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: FAULT ISOLATION OF MAIN ROTOR BLADE

F. Objective: Trainee will be able to safely fault isolate main rotor blade by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials.

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-150-000
3. A1-H53BE-TTM-100

I. Presentation:

1. Review safety program. (A1-NOASH-SAF-000)
2. Review fault isolation of main rotor blade. (A1-H53AD-150-000), (A1-H53AD-150-000), (A1-H53BE-TTM-100)

J. Summary: During this lesson maintenance personnel were familiarized with the fault isolation procedures of the main rotor blade.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.8 (D-1.1)

R&R MAIN ROTOR HEAD

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (D-1.1)

R&R MAIN ROTOR HEAD

[illegible]

A. Lecture Number: 6113/6173 B.8 D-1.1

B. Time: 1 HOUR

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: R&R MAIN ROTOR HEAD

F. Objective: Trainee will be able to safely R&R Main Rotor head by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials.

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53BE-150-000

I. Presentation:

1. Review safety program. (A1-NOASH-SAF-000)
2. Review R&R main rotor head. (A1-H53BE-150-000)

J. Summary: During this lesson maintenance personnel were familiarized with the procedures to R&R main rotor head.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.8 (D-1.2)(D-1.3)

R&R SWASHPLATE AND ROTATING SCISSORS / SHIMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (D-1.2) (D-1.3)

R&R SWASHPLATE AND ROTATING SCISSORS/SHIMS

[illegible]

- A. Lecture Number:** 6113/6173 B.8 D-1.2, D-1.3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R SWASHPLATE AND ROTATING SCISSORS/SHIMS
- F. Objective:** Trainee will be able to safely R&R swash plate and rotating scissors/shims by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R swash plate. (A1-H53BE-150-000)
 3. Review R&R rotating scissors/shims. (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R swash plate and rotating scissor/shims.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (D-1.4)(D-1.5)

R&R SLEEVE & SPINDLE AND HINGE PIN

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (D-1.4) (D-1.5)

R&R SLEEVE & SPINDLE AND HINGE PIN

[illegible]

- A. Lecture Number:** 6113/6173 B.8 D-1.4, D-1.5
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R SLEEVE & SPINDLE AND HINGE PIN
- F. Objective:** Trainee will be able to safely R&R sleeve & spindle and hinge pin by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R sleeve & spindle. (A1-H53BE-150-000)
 3. Review R&R hinge pin. (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R sleeve & spindle and hinge pin.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (D-1.6)(D-1.7)

R&R DAMPER ASSEMBLY AND DAMPER BEARING

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (D-1.6) (D-1.7)

R&R DAMPER ASSEMBLY AND DAMPER BEARING

[illegible]

- A. Lecture Number:** 6113/6173 B.8 D-1.6, D-1.7
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R DAMPER ASSEMBLY AND DAMPER BEARING
- F. Objective:** Trainee will be able to safely R&R damper assembly and damper bearing by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R damper assembly. (A1-H53BE-150-000)
 3. Review R&R damper bearing. (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R damper assembly and damper bearing.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (D-2.1)(D-2.2)

R&R MAIN ROTOR BLADE AND PITCH CONTROL ROD

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (D-2.1) (D-2.2)

R&R MAIN ROTOR BLADE AND PITCH CONTROL ROD

[illegible]

- A. Lecture Number:** 6113/6173 B.8 D-2.1, D-2.2
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R MAIN ROTOR BLADE AND PITCH CONTROL ROD
- F. Objective:** Trainee will be able to safely R&R main rotor blade and pitch control rod by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R main rotor blade. (A1-H53BE-150-000)
 3. Review R&R pitch control rod. (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R Main rotor blade and pitch control rod.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (D-3)

R&R MAIN ROTOR HEAD OIL RESERVOIR

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (D-3)

R&R MAIN ROTOR HEAD OIL RESERVOIR

[illegible]

- A. Lecture Number:** 6113/6173 B.8 D-3
- B. Time:** 5 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R MAIN ROTOR HEAD OIL RESERVOIR
- F. Objective:** Trainee will be able to safely R&R main rotor head oil reservoir by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R main rotor head oil reservoir. (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R Main rotor head oil reservoir.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (D-4)

PERFORM TRACKING AND BALANCE MAIN ROTOR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (D-4)

PERFORM TRACKING AND BALANCE MAIN ROTOR SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.8 D-4
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** PERFORM TRACKING AND BALANCE MAIN ROTOR SYSTEM
- F. Objective:** Trainee will be able to safely perform tracking and balance main rotor system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
 3. NA 01-1A-24
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review tracking and balance main rotor system. (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to perform tracking and balance main rotor system.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.8 (E-1.1)

R&R MAIN ROTOR HEAD (CH-53D)

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (E-1.1)

R&R MAIN ROTOR HEAD CH-53D

[illegible]

A. Lecture Number: 6113/6173 B.8 E-1.1

B. Time: 1 HOUR

C. Date Prepared: OCT 03

D. Date Reviewed: OCT 03

E. Title: R&R MAIN ROTOR HEAD CH-53D

F. Objective: Trainee will be able to safely R&R main rotor head by using proper procedures outlined in the appropriate reference material.

G. Instructional Aids: Applicable tools as required by reference materials.

H. Reference:

1. A1-NOASH-SAF-000
2. A1-H53AD-150-000
3. NA 01-1A-24

I. Presentation:

1. Review safety program. (A1-NOASH-SAF-000)
2. Review R&R main rotor head. (A1-H53AD-150-000),
(A1-H53AD-150-000)

J. Summary: During this lesson maintenance personnel were familiarized with the procedures to R&R main rotor head.

K. Questions and Answer Period:

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LESSON GUIDE NUMBER: 6113/6173 B.8 (E-1.2)(E-1.3)

R&R SWASHPLATE AND ROTATING SCISSORS/SHIMS (CH-53D)

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (E-1.2) (E-1.3)

R&R SWASHPLATE AND ROTATING SCISSORS/SHIMS CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.8 E-1.2, E-1.3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R SWSHPLATE AND ROTATING SCISSORS/SHIMS CH-53D
- F. Objective:** Trainee will be able to safely R&R swash plate and rotating scissors/shims by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R swash plate. (A1-H53AD-150-000)
 3. Review R&R rotating scissors/shims. (A1-H53AD-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R swash plate and rotating scissors/shims.
- K. Questions and Answer Period:**

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TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173
B.8(E-1.4)(E-1.5)(E-1.7)

**R&R SLEEVE & SPINDLE, HINGE
PIN, AND DROOP STOP (CH-53D)**

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8
(E-1.4) (E-1.5) (E-1.7)

R&R SLEEVE & SPINDLE, HINGE PIN,
AND DROOP STOP CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.8 E-1.4, E-1.5, E-1.7
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R SLEEVE & SPINDLE, HINGE PIN, AND DROOP STOP CH-53D
- F. Objective:** Trainee will be able to safely R&R sleeve & spindle, hinge pin, and droop stop by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R sleeve & spindle. (A1-H53AD-150-000)
 3. Review R&R hinge pin. (A1-H53AD-150-000)
 4. Review R&R droop stop. (A1-H53AD-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R sleeve & spindle, hinge pin, and droop stop.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.8 (E-1.8)(E-1.9)

R&R DAMPER ASSEMBLY AND DAMPER BEARING CH-53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (E-1.8) (E-1.9)

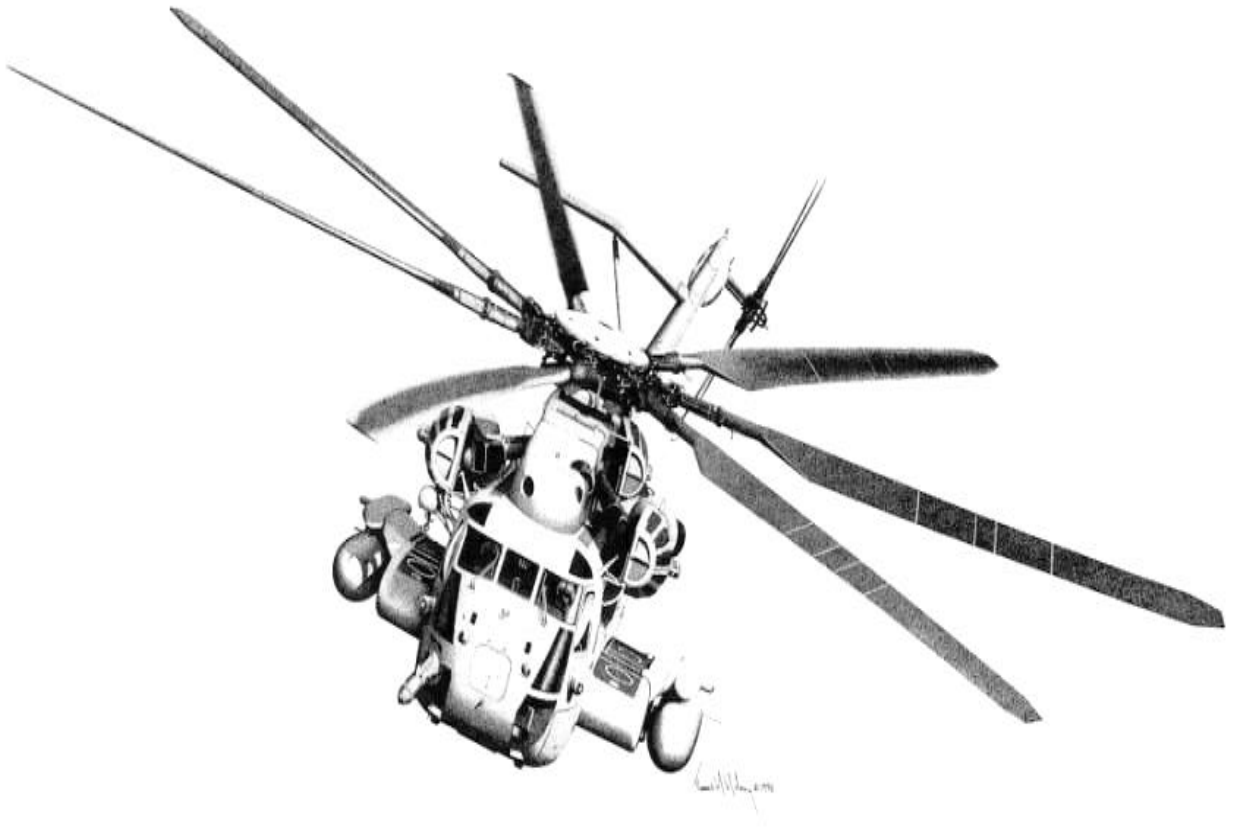
R&R DAMPER ASSEMBLY AND DAMPER BEARING CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.8 E-1.8, E-1.9
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R DAMPER ASSEMBLY AND DAMPER BEARING CH-53D
- F. Objective:** Trainee will be able to safely R&R damper assembly and damper bearing by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R damper assembly. (A1-H53AD-150-000)
 3. Review R&R damper bearing. (A1-H53AD-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R damper assembly and damper bearing.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.8 (E-2.1)(E-2.2)

R&R MAIN ROTOR BLADE AND PITCH CONTROL ROD CH-53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (E-2.1) (E-2.2)

R&R MAIN ROTOR BLADE AND PITCH CONTROL
ROD CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.8 E-2.1, E-2.2
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R MAIN ROTOR BLADE AND PITCH CONTROL ROD
CH-53D
- F. Objective:** Trainee will be able to safely R&R main rotor blade and pitch control rod by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R main rotor blade. (A1-H53AD-150-000)
 3. Review R&R pitch control rod. (A1-H53AD-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R Main rotor blade and pitch control rod.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.8 (E-4)

PERFORM TRACKING AND BALANCE MAIN ROTOR SYSTEM CH-53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.8 (E-4)

PERFORM TRACKING AND BALANCE MAIN ROTOR SYSTEM CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.8 E-4
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** PERFORM TRACKING AND BALANCE MAIN ROTOR SYSTEM CH-53D
- F. Objective:** Trainee will be able to safely perform tracking and balance main rotor system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-150-000
 3. NA 01-1A-24
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review tracking and balance main rotor system. (A1-H53AD-150-000), (NA 01-1A-24)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to perform tracking and balance main rotor system.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

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TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.9 (A-1)(B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF ROTARY RUDDER SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.9 (A-1) (B-1)

THEORY OF OPERATION AND FUNCTIONAL CHECK OF ROTARY RUDDER SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.9 A-1, B-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** THEORY OF OPERATION AND FUNCTIONAL CHECK OF ROTARY RUDDER SYSTEM
- F. Objective:** Trainee will be able to understand theory of operation of rotary rudder systems and be able to safely perform functional checks by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53AD-150-100
 4. NA 01-230HMA-1
 5. A1-H53BE-POM-100
 6. A1-H53BE-150-100
 7. A1-H53BE-NFM-700
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review theory of operation rotary rudder systems. (A1-H53AD-POM-100), (A1-H53BE-POM-100)
 3. Review functional check of rotary rudder system. (A1-H53AD-150-000), (NA 01-230HMA-1), (A1-H53BE-150-100), (A1-H53BE-150-100), (A1-H53BE-NFM-700)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of the rotary rudder system and performing a function check of the rotary rudder system.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
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LESSON GUIDE NUMBER: 6113/6173 B.9 (C-1)

FAULT ISOLATION OF ROTARY RUDDER SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.9 (C-1)

FAULT ISOLATION OF ROTARY RUDDER SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.9 C-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF ROTARY RUDDER SYSTEM
- F. Objective:** Trainee will be able to safely fault isolate Rotary rudder system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-150-000
 3. A1-H53BE-GAI-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review fault isolation of rotary rudder system. (A1-H53AD-150-000), (A1-H53BE-GAI-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the fault isolation procedures of the Rotary rudder system.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
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QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.9 (D-1)

R&R ROTARY RUDDER HEAD

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.9 (D-1)

R&R ROTARY RUDDER HEAD

[illegible]

- A. Lecture Number:** 6113/6173 B.9 D-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R ROTARY RUDDER HEAD
- F. Objective:** Trainee will be able to safely R&R rotary rudder head by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R rotary rudder head. (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R rotary rudder head.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
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LESSON GUIDE NUMBER: 6113/6173 B.9 (D-2)(D-3)

R&R ROTARY RUDDER BLADE AND PITCH LINK ASSEMBLY

H-53 HELICOPTER MECHANIC/CREW CHIEF

R&R ROTARY RUDDER BLADE AND PITCH LINK ASSEMBLY

[illegible]

- A. Lecture Number:** 6113/6173 B.9 D-2, D-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R ROTARY RUDDER BLADE AND PITCH LINK ASSEMBLY
- F. Objective:** Trainee will be able to safely R&R rotary rudder blade and pitch link assembly by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R Rotary rudder blade. (A1-H53BE-150-000), (A1-H53BE-150-000)
 3. Review R&R pitch link assembly. (A1-H53BE-150-000), (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R rotary rudder blade and pitch link assembly.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
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MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.9 (D-4)

PERFORM TRACKING AND BALANCE ROTARY RUDDER SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.9 (D-4)

PERFORM TRACKING AND BALANCE ROTARY RUDDER SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.9 D-4
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** PERFORM TRACKING AND BALANCE ROTARY RUDDER SYSTEM
- F. Objective:** Trainee will be able to safely perform tracking and balance rotary rudder system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-150-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review tracking and balance Rotary rudder system. (A1-H53BE-150-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to perform tracking and balance rotary rudder system.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.10 (A-1)

THEORY OF OPERATION OF MAIN FUEL SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (A-1)

THEORY OF OPERATION OF MAIN FUEL SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.10 A-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** THEORY OF OPERATION OF MAIN FUEL SYSTEM
- F. Objective:** Trainee will be able to understand theory of operation of main fuel systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53BE-POM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review theory of operation main fuel systems. (A1-H53AD-POM-100), (A1-H53BE-POM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of the main fuel system.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.10 (A-2)(A-3)

THEORY OF OPERATION OF AUXILIARY AND INTERNAL AUXILIARY FUEL SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (A-2) (A-3)

THEORY OF OPERATION OF AUXILIARY AND INTERNAL FUEL SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.10 A-2, A-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** THEORY OF OPERATION OF AUXILIARY AND INTERNAL AUXILIARY FUEL SYSTEM
- F. Objective:** Trainee will be able to understand theory of operation of auxiliary and internal auxiliary fuel systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53BE-POM-100
 4. A1-H53BE-POM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review theory of operation of auxiliary fuel system. (A1-H53AD-POM-100), (A1-H53BE-POM-100)
 3. Review theory of operation of internal auxiliary fuel system. (A1-H53AD-POM-100), (A1-H53BE-POM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of the auxiliary and internal auxiliary fuel systems.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.10 (A-4)(A-5)(A-6)

THEORY OF OPERATION OF AERIAL REFUEL, PURGE/BLEED AIR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (A-4) (A-5) (A-6)

THEORY OF OPERATION OF AERIAL REFUEL, PURGE/BLEED AIR SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.10 A-4, A-5, A-6
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** THEORY OF OPERATION OF AERIAL REFUEL,
PURGE/BLEED AIR SYSTEM
- F. Objective:** Trainee will be able to understand theory of operation of aerial refuel, purge/bleed air systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53BE-POM-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review theory of operation of aerial refuel system. (A1-H53BE-POM-100)
 3. Review theory of operation of purge/bleed air system CH-53E. (A1-H53BE-POM-100)
 4. Review theory of operation of purge/bleed air system CH-53D. (A1-H53AD-POM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of aerial refuel, purge/bleed air systems.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
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LESSON GUIDE NUMBER: 6113/6173 B.10 (B-1)(B-2)

FUNCTIONAL CHECK MAIN AND AUXILIARY FUEL SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (B-1) (B-2)

FUNCTIONAL CHECK AND MAIN AUXILIARY FUEL SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.10 B-1, B-2
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FUNCTIONAL CHECK MAIN AND AUXILIARY FUEL SYSTEMS
- F. Objective:** Trainee will be able to safely perform functional checks on the main and auxiliary fuel systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-460-000
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review functional check on main fuel system. (A1-H53AD-460-000), (A1-H53BE-TTM-100)
 3. Review functional check on auxiliary fuel system. (A1-H53AD-460-000), (A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the functional checks on the main and auxiliary fuel systems.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
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LESSON GUIDE NUMBER: 6113/6173 B.10 (B-4)(B-5)(B-6)

FUNCTIONAL CHECK OF AERIAL REFUEL, PURGE/BLEED AIR SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (B-4) (B-5) (B-6)

FUNCTIONAL CHECK OF AERIAL REFUEL, PURGE/BLEED AIR SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.10 B-4, B-5, B-6
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FUNCTIONAL CHECK OF AERIAL REFUEL,
PURGE/BLEED AIR SYSTEM
- F. Objective:** Trainee will be able to safely perform functional checks of aerial refuel, purge/bleed air systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-460-000
 3. A1-H53BE-GAI-000
 4. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. A1-NOASH-SAF-000)
 2. Review functional check of aerial refuel system. (A1-H53BE-GAI-000)
 3. Review functional check of purge/bleed air system CH-53E. (A1-H53BE-TTM-100)
 4. Review functional check of purge/bleed air system CH-53D. (A1-H53AD-460-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the functional check of aerial refuel, purge/bleed air systems.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
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MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.10 (C-1)(C-2)(C-3)

FAULT ISOLATION OF MAIN, AUXILIARY, AND INTERNAL AUXILIARY FUEL SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (C-1) (C-2) (C-3)

FAULT ISOLATION OF MAIN, AUXILIARY, AND INTERNAL FUEL SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.10 C-1, C-2, C-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF MAIN, AUXILIARY, AND INTERNAL AUXILIARY FUEL SYSTEMS
- F. Objective:** Trainee will be able to safely fault isolate the main, auxiliary, and internal auxiliary fuel systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-120
 3. A1-H53AD-TTM-120
 4. A1-H53BE-TTM-100
 5. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review fault isolation of main fuel system. A1-H53AD-TTM-120, A1-H53BE-TTM-100
 3. Review fault isolation of auxiliary fuel system. (A1-H53AD-TTM-120), (A1-H53BE-TTM-100)
 4. Review fault isolation of internal auxiliary fuel system. (A1-H53AD-TTM-120), (A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the main, auxiliary, and internal auxiliary fuel systems.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
MARINE CORPS COMBAT DEVELOPMENT COMMAND
QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.10 (C-4)(C-5)(C-6)

FAULT ISOLATION OF AERIAL REFUEL, PURGE/BLEED AIR SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (C-4) (C-5) (C-6)

FAULT ISOLATION OF AERIAL REFUEL, PURGE/BLEED AIR SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.10 C-4, C-5, C-6
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF AERIAL REFUEL, PURGE/BLEED AIR SYSTEMS
- F. Objective:** Trainee will be able to safely perform fault isolation on the aerial refuel, purge/bleed air systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-120
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review fault isolation on aerial refuel system. (A1-H53BE-TTM-100)
 3. Review fault isolation on purge/bleed air system CH-53E. (A1-H53BE-TTM-100)
 4. Review fault isolation on purge/bleed air system CH-53D. (A1-H53AD-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation of the aerial refuel, purge/bleed air systems.
- K. Questions and Answer Period:**

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AVIATION TRAINING BRANCH
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QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.10 (D-1)

R&R MAIN FUEL SYSTEM COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (D-1)

R&R MAIN FUEL SYSTEM COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.10 D-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R MAIN FUEL SYSTEM COMPONENTS
- F. Objective:** Trainee will be able to safely R&R Main fuel system components by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-460-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R main fuel system components. (A1-H53BE-460-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R main fuel system components.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
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QUANTICO, VIRGINIA 22134-5050



LESSON GUIDE NUMBER: 6113/6173 B.10 (D-1)

R&R MAIN FUEL SYSTEM COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (D-1)

R&R MAIN FUEL SYSTEM COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.10 D-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R MAIN FUEL SYSTEM COMPONENTS
- F. Objective:** Trainee will be able to safely R&R Main fuel system components by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-460-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R main fuel system components. (A1-H53BE-460-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R main fuel system components.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.10 (D-2)

R&R AUXILIARY FUEL TANK

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (D-2)

R&R AUXILIARY FUEL TANK

[illegible]

- A. Lecture Number:** 6113/6173 B.10 D-2
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R AUXILIARY FUEL TANK
- F. Objective:** Trainee will be able to safely R&R auxiliary fuel tank by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-460-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R auxiliary fuel tank. (A1-H53BE-460-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R auxiliary fuel tank.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.10 (D-4)(D-5)

R&R FUEL PROBE AND PURGE/BLEED AIR COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.10 (D-4) (D-5)

R&R FUEL PROBE AND PURGE/BLEED AIR COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.10 D-4, D-5
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R FUEL PROBE AND PURGE/BLEED AIR COMPONENTS
- F. Objective:** Trainee will be able to safely R&R fuel probe and purge/bleed air components by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-460-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R fuel probe. (A1-H53BE-460-000)
 3. Review R&R purge/bleed air components. (A1-H53BE-460-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R fuel probe and purge/bleed air components.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.11 (A-1)(A-2)(A-3)

THEORY OF OPERATION OF CARGO HOOK AND DUAL POINT SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.11 (A-1) (A-2) (A-3)

THEORY OF OPERATION OF CARGO HOOK AND DUAL POINT SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.11 A-1, A-2, A-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** THEORY OF OPERATION OF CARGO HOOK AND DUAL POINT SYSTEMS
- F. Objective:** Trainee will be able to understand theory of operation of cargo hook and dual point systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53BE-POM-100
 4. A1-H53BE-POM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review theory of operation cargo hook system. (A1-H53AD-POM-100), (A1-H53BE-POM-100)
 3. Review theory of operation dual point system. (A1-H53BE-POM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of the cargo hook and dual point systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.11 (B-1)(B-2)(B-3)

FUNCTIONAL CHECK OF CARGO HOOK AND DUAL POINT SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.11 (B-1) (B-2) (B-3)

FUNCTIONAL CHECK OF CARGO HOOK AND DUAL POINT SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.11 B-1, B-2, B-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FUNCTIONAL CHECK OF CARGO HOOK AND DUAL POINT SYSTEMS
- F. Objective:** Trainee will be able to safely perform functional checks on the cargo hook and dual point systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-110-000
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review functional checks cargo hook system. (A1-H53AD-110-000), (A1-H53BE-TTM-100)
 3. Review functional checks dual point system, (A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the functional checks of the cargo hook and dual point systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.11 (C-1)(C-2)(C-3)

FAULT ISOLATION OF CARGO HOOK AND DUAL POINT SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.11 (C-1) (C-2) (C-3)

FAULT ISOLATION OF CARGO HOOK AND DUAL POINT SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.11 C-1, C-2, C-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FAULT ISOLATION OF CARGO HOOK AND DUAL POINT SYSTEMS
- F. Objective:** Trainee will be able to safely fault isolate the cargo hook and dual point systems by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-TTM-100
 3. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review fault isolation cargo hook system. (A1-H53AD-TTM-100), (A1-H53BE-TTM-100)
 3. Review fault isolation dual point system. (A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation procedures of the cargo hook and dual point systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.11 (D-1)(D-2)

R&R SINGLE AND DUAL POINT SYSTEM COMPONENTS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.11 (D-1) (D-2)

R&R SINGLE AND DUAL POINT SYSTEM COMPONENTS

[illegible]

- A. Lecture Number:** 6113/6173 B.11 D-1, D-2
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R SINGLE AND DUAL POINT SYSTEM COMPONENTS
- F. Objective:** Trainee will be able to safely R&R single and dual point system components by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-110-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R single point system components. (A1-H53BE-110-000)
 3. Review R&R dual point system components. (A1-H53BE-110-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R single and dual point system components.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.11 (D-3)

RIG DUAL POINT SYSTEM

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.11 (D-3)

RIG DUAL POINT SYSTEM

[illegible]

- A. Lecture Number:** 6113/6173 B.11 D-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** RIG DUAL POINT SYSTEM
- F. Objective:** Trainee will be able to safely rig dual point system by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review rig dual point system. (A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to rig dual point system.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.11 (E-1)

R&R SINGLE POINT SYSTEM COMPONENTS CH-53D

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.11 (E-1)

R&R SINGLE POINT SYSTEM COMPONENTS CH-53D

[illegible]

- A. Lecture Number:** 6113/6173 B.11 E-1
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** R&R SINGLE POINT SYSTEM COMPONENTS
- F. Objective:** Trainee will be able to safely R&R single point system components by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-110-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review R&R single point system components. (A1-H53AD-110-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to R&R single point system components.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

AVIATION TRAINING BRANCH
TRAINING COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.12 (A-1)(A-2)(A-3)

THEORY OF OPERATION OF UTILITY SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.12 (A-1) (A-2) (A-3)

THEORY OF OPERATION OF UTILITY SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.12 A-1, A-2, A-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** THEORY OF OPERATION OF UTILITY SYSTEMS
- F. Objective:** Trainee will be able to understand theory of operation of utility systems; cargo winch, utility hoist, and cabin heater by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-POM-100
 3. A1-H53BE-POM-100
 4. A1-H53BE-POM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review theory of operation cargo winch system. (A1-H53AD-POM-100), (A1-H53BE-POM-100)
 3. Review theory of operation utility hoist system. (A1-H53BE-POM-100)
 4. Review theory of operation cabin heater system. (A1-H53AD-POM-100), (A1-H53BE-POM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the theory of operation of the cargo winch, utility hoist, and cabin heater systems.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

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LESSON GUIDE NUMBER: 6113/6173 B.12 (B-1)(B-2)(B-3)

FUNCTIONAL CHECK OF UTILITY SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.12 (B-1) (B-2) (B-3)

FUNCTIONAL CHECK OF UTILITY SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.12 B-1, B-2, B-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** FUNCTIONAL CHECK OF UTILITY SYSTEMS
- F. Objective:** Trainee will be able to safely perform functional checks of utility systems, cargo winch, utility hoist, and cabin heater by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-110-000
 3. A1-H53AD-460-000
 4. A1-H53BE-TTM-100
 5. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review functional checks cargo winch system. (A1-H53AD-110-000), (A1-H53BE-TTM-100)
 3. Review functional checks utility hoist system, (A1-H53BE-TTM-100)
 4. Review functional checks cabin heater system, (A1-H53AD-460-000), (A1-H53BE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the functional checks of utility systems, cargo winch, utility hoist, and cabin heater systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.12 (C-1)(C-2)(C-3)

FAULT ISOLATION OF CARGO WINCH, UTILITY HOIST AND CABIN HEATER SYSTEMS

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.12 (C-1) (C-2) (C-3)

FAULT ISOLATION OF CARGO WINCH, UTILITY HOIST AND CABIN HEATER SYSTEMS

[illegible]

- A. Lecture Number:** 6113/6173 B.12 C-1, C-2, C-3
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** Fault isolation of Cargo Winch, Utility Hoist and Cabin Heater Systems.
- F. Objective:** Trainee will be able to safely perform fault isolation of cargo winch, utility hoist, and cabin heater by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-110-000
 3. A1-H53AD-460-000
 4. A1-H53BE-TTM-100
 5. A1-H53BE-TTM-100
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review fault isolation cargo winch system. (A1-H53AD-110-000), (A1-H53CE-TTM-100)
 3. Review fault isolation utility hoist system. (A1-H53CE-TTM-100)
 4. Review fault isolation cabin heater system. (A1-H53AD-460-000), (A1-H53CE-TTM-100)
- J. Summary:** During this lesson maintenance personnel were familiarized with the fault isolation of cargo winch, utility hoist, and cabin heater systems.
- K. Questions and Answer Period:**

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LESSON GUIDE NUMBER: 6113/6173 B.13 (A)(B)

**PERFORM HAND SIGNALS DURING
LAUNCH AND RECOVERY**

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.13 (A) (B)

PERFORM HAND SIGNALS DURING LAUNCH AND RECOVERY

[illegible]

- A. Lecture Number:** 6113/6173 B.13 A, B
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** PERFORM HAND SIGNALS DURING LAUNCH AND RECOVERY
- F. Objective:** Trainee will be able to safely perform hand signals during launch and recovery by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. NA 00-80T-113
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review hand signals for launch. (NA 00-80T-113)
 3. Review hand signals for recovery. (NA 00-80T-113)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to perform hand signals during launch and recovery.
- K. Questions and Answer Period:**

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MARINE CORPS COMBAT DEVELOPMENT COMMAND
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LESSON GUIDE NUMBER: 6113/6173 B.13 (C)

SECURE AIRCRAFT, NORMAL & FOUL WEATHER

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.13 (C)

SECURE AIRCRAFT, NORMAL & FOUL WEATHER

[illegible]

- A. Lecture Number:** 6113/6173 B.13 C
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** SECURE AIRCRAFT, NORMAL & FOUL WEATHER
- F. Objective:** Trainee will be able to safely secure aircraft for normal and foul weather by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials.
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-GAI-000
 3. A1-H53BE-GAI-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Reviews secure aircraft for normal and foul weather. (A1-H53AD-GAI-000), (A1-H53BE-GAI-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to secure aircraft in both normal and foul weather.
- K. Questions and Answer Period:**

UNITED STATES MARINE CORPS

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LESSON GUIDE NUMBER: 6113/6173 B.14 (B)(C)(D)(E)

PERFORM REFUEL/DEFUEL AND FUEL SAMPLING

H-53 HELICOPTER MECHANIC/CREW CHIEF

LESSON GUIDE NUMBER: MOS 6113/6173 B.14 (B) (C) (D) (E)

PERFORM REFUEL/DEFUEL AND FUEL SAMPLING

[illegible]

- A. Lecture Number:** 6113/6173 B.14 B, C, D, E
- B. Time:** 1 HOUR
- C. Date Prepared:** OCT 03
- D. Date Reviewed:** OCT 03
- E. Title:** PERFORM REFUEL/DEFUEL AND FUEL SAMPLING
- F. Objective:** Trainee will be able to safely perform pressure refueling (normal), suction defueling, hot refueling, gravity refueling, and fuel sampling by using proper procedures outlined in the appropriate reference material.
- G. Instructional Aids:** Applicable tools as required by reference materials
- H. Reference:**
1. A1-NOASH-SAF-000
 2. A1-H53AD-GAI-000
 3. A1-H53BE-GAI-000
- I. Presentation:**
1. Review safety program. (A1-NOASH-SAF-000)
 2. Review pressure refueling normal and hot. (A1-H53AD-GAI-000), (A1-H53BE-GAI-000)
 3. Review suction de-fueling. (A1-H53AD-GAI-000), (A1-H53BE-GAI-000)
 4. Review gravity refueling. (A1-H53BE-GAI-000)
 5. Review fuel sampling. (A1-H53BE-GAI-000)
- J. Summary:** During this lesson maintenance personnel were familiarized with the procedures to pressure refuel, both normal and hot, suction defueling, gravity refueling, and fuel sampling.
- K. Questions and Answer Period:**